

MINISTRY OF TRANSPORT AND
CIVIL AVIATION

Report of the
Committee of Inquiry into
London Transport



LONDON:
HER MAJESTY'S STATIONERY OFFICE
1955

ROYAL

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Report

TO THE RIGHT HON. J. A. BOYD-CARPENTER, M.P.,
MINISTER OF TRANSPORT AND CIVIL AVIATION.

CHAPTER I

Appointment of the Committee and Terms of Reference

1. The decision to appoint a Committee of Inquiry was announced in the House of Commons by the Right Hon. A. T. Lennox-Boyd, M.P., then Minister of Transport, on 28th April, 1953. The composition of the Committee was announced by the Minister on 8th July, 1953.

2. Our terms of reference are :—

“ To inquire into the conduct of the undertaking carried on by the London Transport Executive (excluding any questions relating to charges) with a view to ascertaining what practical measures can be taken by the British Transport Commission and the Executive in order to secure greater efficiency or economy, and to report.”

3. Questions relating to charges (i.e., fares charged to passengers) are specifically excluded and as explained by Mr. Lennox-Boyd in the House of Commons on 28th April, 1953, the reason for this lies in the existence of a standing body—the Transport Tribunal—which is already charged with the duty of adjudicating upon the charges proposed by the British Transport Commission in respect of the services and facilities provided by the Commission. Nevertheless there are several ways in which the system of charging or collecting fares can affect the economy and efficiency of a transport undertaking. Where the system of charging or collecting fares has an important bearing upon the economy and efficiency with which the London Transport Executive's undertaking is conducted we have assumed that it is our duty to examine the effect of that system upon economy or efficiency but to refrain from any expression of opinion upon the actual level of fares in operation.

4. Similar considerations apply to questions of wages and conditions of service. Negotiating machinery exists for settling wages and conditions and we do not consider that it would be proper for us to make specific recommendations on these matters. Where, however, any conditions of employment in our view seem unreasonably to hinder the efficient and economical working of the undertaking we consider it to be our duty to draw attention to the matter. This is in accordance with an answer given by Mr. Lennox-Boyd in the House of Commons on 4th May, 1953 :—

“ But if, for example, some such agreement relating to conditions of service appeared to them to have resulted in an uneconomical use of manpower it would be quite proper for them to draw attention to it and to suggest that it should be examined through the appropriate negotiating machinery.”

5. Traffic and road conditions are important factors affecting the efficiency of the road services of the London Transport Executive. It would be impossible for us to make a detailed study of this subject, which has implications extending



beyond the undertaking carried on by the London Transport Executive. Moreover, several other bodies have examined certain aspects of the subject and have made recommendations. We have therefore confined ourselves to drawing attention to the important bearing which road and traffic conditions have upon the efficiency and economy of the road services of London Transport, to recommendations which have been made by other bodies and to the absence hitherto of any vigorous and effective action to deal with these problems.

6. Finally, we have assumed that under our terms of reference we are required to examine the statutory undertaking as now constituted. Where, however, we consider that improvements in efficiency might result from modifications in the relationships between the London Transport Executive, the British Transport Commission and the Ministry of Transport and Civil Aviation we have made recommendations accordingly.

CHAPTER II

Proceedings of the Committee

7. We have held meetings on 47 days and we have received, in response to our invitation, a large volume of written evidence from local authorities, from other bodies and from individual members of the public. In a few cases this written evidence has been followed by oral evidence where we desired to have elucidation of the points made or of the proposals put forward. We decided that the public interest could best be served by receiving oral evidence in private with the understanding that any bodies or persons who wished to publish their written evidence were at liberty to do so.

8. The written evidence submitted to us comprised letters and memoranda from—

- 24 local authorities or groups of local authorities ;
- 26 other bodies ;
- 130 individual members of the public.

A list of the bodies who were invited and of those who submitted oral or written evidence is given in Appendix I.

9. Comparatively few of the representations made to us indicated any serious dissatisfaction with the general quality of the services provided by the London Transport Executive. Much of the evidence submitted consisted of proposals for the local modification of existing road or rail services and we took the view that this evidence was relevant only to the extent that it showed how the London Transport Executive conducted their business and the nature of the demands regularly made upon them. These proposals were therefore forwarded to the London Transport Executive who were asked to send direct replies to the bodies or persons concerned ; copies of these replies were sent to us in every case. In a few instances, where it was alleged that the Executive had failed to give adequate consideration to a proposal of this kind, we examined the matter to see whether the complaint appeared to be justified. On all the representations which related to matters other than the details of local services we obtained and examined the London Transport Executive's comments.

10. Among the bodies who declined our invitation to give evidence in writing or orally was the Transport and General Workers' Union who represent a large proportion of the staff of London Transport. We regret this decision which has deprived us of the opportunity of learning the views of the Union's members

on certain matters affecting the efficiency of the undertaking. Copies of our invitation to the Union and of their reply are in Appendix I.

11. The London Transport Executive gave us much written evidence, including full answers to more than one hundred questions which we put to them, and members of the Executive, usually accompanied by senior officers, gave extensive oral evidence at fifteen of our meetings. Members of the British Transport Commission and officials of the Ministry of Transport and Civil Aviation also provided us with written and oral evidence. The answers to our written questions and transcripts of the oral evidence given by the London Transport Executive, the British Transport Commission and the Ministry of Transport and Civil Aviation are in Part II of our Report.

12. We have visited road and rail overhaul works, railway depots, garages and the headquarters offices of the London Transport Executive and have inspected road and rail traffic conditions at many typical or strategic points.

13. The members and officers of the London Transport Executive and of the British Transport Commission, as well as officials of the Ministry of Transport and Civil Aviation, have given us all possible assistance and—particularly in the case of the London Transport Executive upon whom the greatest burden fell—have spared no trouble to obtain and supply the information which we wanted.

14. Members of the Committee visited Glasgow, Liverpool and Manchester, and had opportunities of comparing traffic conditions, methods of operation and maintenance and working conditions in those cities with the corresponding conditions in London. We are particularly grateful to the Transport Committees and to the Managements of the Transport Departments in those cities for their courtesy and helpfulness and also to the Birmingham City Transport Department who have given us information in writing.

15. Our Chairman took the opportunity during business visits to other countries to observe methods of transport operation in other large cities, including New York, Washington, Montreal, Toronto, San Francisco, Wellington, Sydney, Melbourne, Johannesburg and Rome, and to obtain facts and figures relating to the transport undertakings in those cities.

CHAPTER III

The Functions of the British Transport Commission and the London Transport Executive

16. The British Transport Commission was set up under the Transport Act, 1947, and the Commission's general duty is set out in Section 3 of that Act, the relevant parts of which read as follows :—

“ 3.—(1) It shall be the general duty of the Commission so to exercise their powers under this Act as to provide, or secure or promote the provision of, an efficient, adequate, economical and properly integrated system of public inland transport and port facilities within Great Britain for passengers and goods with due regard to safety of operation ; and for that purpose it shall be the duty of the Commission to take such steps as they consider necessary for extending and improving the transport and port facilities within Great Britain in such manner as to

provide most efficiently and conveniently for the needs of the public, agriculture, commerce and industry.

* * * * *

(4) All the business carried on by the Commission, whether or not arising from undertakings or parts of undertakings vested in them by or under any provision of this Act, shall form one undertaking, and the Commission shall so conduct that undertaking and, subject to the provisions of this Act, levy such fares, rates, tolls, dues and other charges, as to secure that the revenue of the Commission is not less than sufficient for making provision for the meeting of charges properly chargeable to revenue, taking one year with another."

17. Under Section 5 of the Transport Act, 1947, a number of Executives were set up, including the London Transport Executive, and the Act provides that :

"Each Executive shall, as agents for the Commission, exercise such functions of the Commission as are for the time being delegated to them by or under a scheme made by the Commission and approved by the Minister."

18. By a Scheme of Delegation which became effective from 1st January, 1948, the London Transport Executive were given the task of managing the undertaking formerly carried on by the London Passenger Transport Board. The British Transport Commission reserved for themselves certain functions, including policy in regard to fares and the preparation of charges schemes, and directed that the Commission's prior approval must be obtained for all proposals relating to capital expenditure projects in excess of £50,000, appointments and salaries of senior officers, important agreements on wages and conditions and certain other matters.

19. The Transport Act, 1953, made substantial changes in the functions of the British Transport Commission, the principal changes being—

- (a) to relieve the Commission of the duty of providing a comprehensive road haulage system ;
- (b) to provide for the reorganisation of the railways ;
- (c) to modify the provisions of the 1947 Act in regard to the Executives of the Commission (all the Executives except the London Transport Executive subsequently being abolished under an Order made by the Minister).

These changes involved a restatement of the duties of the British Transport Commission and Section 25 of the Transport Act, 1953, which deals with this matter, reads as follows :—

"25.—(1) For subsections (1) to (3) of section three of the Transport Act, 1947 (which relates to the general duty of the Commission), there shall be substituted the following subsection—

'(1) It shall be the general duty of the Commission, in the exercise of their powers under this Act—

- (a) to provide railway services for Great Britain ;
- (b) to provide or secure the provision of an adequate and properly co-ordinated system of passenger transport for the London Passenger Transport Area ;
- ((c) to (e) deal with other matters which are not relevant to our inquiry)*

due regard being had, as respects all the services and facilities mentioned in this subsection, to efficiency, economy and safety of operation, and to the needs of the public, agriculture, commerce and industry.'"

20. We drew attention to the change in the wording between the 1947 Act and the 1953 Act and in particular to the relegation of the reference to efficiency and economy to a subordinate clause of Subsection (1) in the 1953 Act preceded by the requirement that "due regard" is to be had to such matters. We have been informed, however, by the Ministry of Transport and Civil Aviation, the British Transport Commission and the London Transport Executive that this change in wording has not been taken to mean that the requirement to have regard to efficiency and economy is any less important than the requirement to provide an adequate and properly co-ordinated system of passenger transport for the London Passenger Transport Area. For what it is worth, however, there is this change in the wording of the statutes.

21. It will be observed that the duty of providing an adequate and properly co-ordinated system of passenger transport in the London Passenger Transport Area falls primarily upon the British Transport Commission. Moreover, only a part of the passenger transport system in the area is under the control of the London Transport Executive since the suburban services of the British Transport Commission (British Railways) are operated directly by the Commission and are not under the control of the London Transport Executive. Nevertheless, in managing the undertaking formerly carried on by the London Passenger Transport Board under the Commission's Scheme of Delegation the London Transport Executive have their own responsibility for providing such a system. Section 3 of the London Passenger Transport Act, 1933, which set up the London Passenger Transport Board reads as follows :—

"3.—(1) It shall be the general duty of the Board so to exercise their powers under this Act as to secure the provision of an adequate and properly co-ordinated system of passenger transport for the London Passenger Transport Area (as hereinafter in this Act defined), and for that purpose, while avoiding the provision of unnecessary and wasteful competitive services, to take from time to time such steps as they consider necessary for extending and improving the facilities for passenger transport in that area in such manner as to provide most efficiently and conveniently for the needs thereof.

(2) The undertakings and parts of undertakings which are by this Act transferred to the Board, and any undertakings or parts of undertakings which under this Act are from time to time acquired, taken on lease or established by the Board, shall constitute, and be administered by them as, one undertaking.

* * * * *

(4) It shall be the duty of the Board to conduct their undertaking in such manner, and to fix such fares and charges in accordance with the provisions of this Act, as to secure that their revenues shall be sufficient to defray all charges which are by this Act required to be defrayed out of the revenues of the Board."

22. Our terms of reference relate to the undertaking carried on by the London Transport Executive and do not cover the suburban railway services of the British Transport Commission. For a long time, however, it has been recognised that the suburban railway services of London must be closely co-ordinated with the road and railway services of London Transport and we have assumed that it is our duty to examine this co-ordination in so far as it affects the efficiency or economy of London Transport.

23. The British Transport Commission did not take over the passenger transport undertakings of any other large cities and today these are in most cases carried on by municipal authorities. Under the Transport Act, 1947, however, substantial holdings in a number of privately operated passenger

transport undertakings were vested in the British Transport Commission, some of these holdings giving control and some being only minority holdings. The 1947 Act also provided for preparation by the Commission of area road passenger transport schemes but this provision was repealed by the Transport Act, 1953. We are therefore left with the position that, so far as passenger transport is concerned, the British Transport Commission has functions in respect of London which it does not possess for any other large city.

CHAPTER IV

General Description of the Undertaking

24. The London Transport Executive as the successors of the London Passenger Transport Board operate bus, coach, trolley-bus and certain railway passenger services over an area of some 2,000 square miles with a population of about 9·8 millions. The total length of London Transport's railway routes was 223 miles at the end of 1953; the total track mileage including sidings was 637 miles. These railways are the tube lines (Piccadilly, Northern, Central and Bakerloo lines) and the Metropolitan and District lines. The total length of road on which the Executive's central, suburban and country road services were operated at the end of 1953 was 2,962 miles, including 253 miles of road (494 miles of track) equipped for trolley-buses; the total length of all the road service routes was 8,129 miles.

25. At the end of 1953 London Transport's rolling stock comprised 7,201 double-deck buses, 893 single-deck buses, 372 coaches, 1,797 trolley-buses, 4,099 railway passenger cars, 16 electric locomotives and 1,149 miscellaneous service vehicles.

26. The total staff of the London Transport Executive at the end of 1953 was 94,605. Further details are given in paragraph 308.

27. Some 634 million vehicle or car miles were run by London Transport's passenger services in 1953: 279 million car miles by the central buses, 74·2 million by the trolley-buses, 47·9 million by the country buses, 23·4 million by the Green Line coaches and 209 million by the London Transport railways (including about 14 million car miles run over the British Railways system).

28. Some 3,658 million passenger journeys were made on London Transport's road services in 1953 and 580 million journeys on the railway services, representing about 8,443 million and 3,333 million passenger miles respectively.

29. These are higher figures than those for any other city passenger transport system in the world. For instance, passenger journeys on the New York public transit system are fewer than 2,000 million in twelve months. In Britain the largest undertaking apart from London is the Glasgow Corporation Transport Department but the number of passenger journeys in Glasgow in the twelve months ended on 31st May, 1954, was about 684 millions which is less than one-sixth of the number for London. London has the only large underground railway system in the United Kingdom.

Size of the London Passenger Transport Area

30. The London Passenger Transport Area comprises the London Transport "Special Area", of some 1,600 square miles, and additional territories of some 400 square miles outside the "Special Area". So far as railways are concerned all services are provided either by the London Transport Executive or by the suburban railways of the British Transport Commission. As regards road services, the London Transport Executive have the power, in respect of the "Special Area", to veto any proposal of a private operator to operate a public passenger transport service and the Executive do in practice endeavour themselves to provide any necessary road passenger service falling wholly within that area. In respect of the 400 square miles outside the "Special Area" the London Transport Executive have the right to provide services but have to apply to the appropriate Licensing Authority for Public Service Vehicles, who can grant licences to other transport undertakings which may propose to operate within these outer areas. The power of veto which the London Transport Executive enjoy for the "Special Area" does not operate for services within the outer areas. A map showing the boundaries of the London Passenger Transport Area and of the London Transport "Special Area" is included in this Report as Appendix II.

31. We have considered whether London Transport could be run more efficiently or more economically if the area were larger or smaller. The undertaking carried on by the London Transport Executive is not only the largest transport undertaking in the world for city and suburban passenger traffic but extends over an area which goes far beyond the area covered by London proper and its immediate dormitory suburbs. It can be argued that the area is unnecessarily large and that in consequence the undertaking is unwieldy. The complaint is also made that because of the size of the undertaking London Transport are insensitive to local needs in outlying parts of the area which they serve.

32. It is inevitable that the larger and the more impersonal the nature of an undertaking which serves the public need the greater will be the sense of frustration if members of the public cannot get all the services they want. It is also true that there is frequently a vague idea that the travelling public are entitled to certain standards of service regardless of cost. This impression was given to us by at least one group of local authorities who were pressing for improved facilities but had given no consideration to the cost of providing them. Whilst we do not think that it would be possible to eliminate complaints of this kind altogether, the machinery for dealing with complaints exists and our enquiries do not show that London Transport have acted unfairly or unwisely in handling applications for improved travel facilities for outlying areas. The network of bus services provided by London Transport in rural areas is under separate operational control and is designed to meet the special needs of these areas.*

33. In determining the size of the area to be covered by an authority required to provide an integrated service of passenger transport for London the pattern of passenger transport in the area must remain the dominant consideration. The main flow of traffic during the peak periods is from the inner and outer suburbs and outlying areas towards the centre of London in the morning and in the reverse direction in the evening. The requirements of this traffic are supplied by the London Transport Executive and by the suburban railway services of the British Transport Commission. Any substantial reduction in the size of the area

* See paragraphs 66, 83 and 117 on the subject of other operators in the London Passenger Transport Area.

covered by London Transport would take away from the control of London Transport a substantial part of this main traffic (to the extent that it is on the roads), which would have to be handled by other undertakings. Whilst it is true that other and smaller undertakings could handle the local traffic in these outlying parts of the London Passenger Transport Area a reduction in the size of the area which took away from London Transport a substantial part of the flow of traffic to and from the centre of London would not, we consider, lead to economies or to more efficient working. On the whole, we take the view that because of this traffic it is sounder in principle to regard the whole area as indivisible. We would not, therefore, recommend any reduction in the size of the area.

34. Certain anomalies exist because the boundaries of the London Passenger Transport Area pass through the centre of outlying towns, and the services of other undertakings operating outside the London Passenger Transport Area terminate at the same points in these towns so that for a journey into or within a town it is often necessary to change buses. A more convenient arrangement would be to include the whole of these towns within the London Passenger Transport Area and also to allow the other undertakings to operate throughout these towns with suitable inter-running arrangements. We suggest that a detailed examination of this matter should be made for each of the towns in question.

CHAPTER VI

The Financial Results

35. The annual reports of the British Transport Commission show that before making any contribution towards the central charges of the Commission (of which London Transport's share is estimated at about £5,400,000 per annum) the operations of the London Transport Executive and the net advertising, rents and other miscellaneous receipts applicable to its undertaking during the six years from the date on which it became vested in the Commission, i.e. from 1st January, 1948 to 31st December, 1953, produced the following results :—

	<i>Net traffic receipts surplus or (deficiency)</i>	<i>Net advertising receipts</i>	<i>Net rents, etc.</i>	<i>Total surplus or (deficiency)</i>
1948	5,863,179	1,302,644	188,732	7,354,555
1949	3,710,751	1,291,645	223,541	5,225,937
1950	1,748,571	1,187,892	221,737	3,158,200
1951	(1,550,053)	1,267,219	215,109	(67,725)
1952	952,037	1,080,490	210,432	2,242,959
1953	636,312	1,135,233	222,391	1,993,936
Total for six years	£11,360,797	£7,265,123	£1,281,942	£19,907,862

36. The contribution towards central charges, which is not deducted in the Commission's accounts in arriving at the results set out above, is London Transport's share of the costs of the central services of the Commission and the interest charges borne by the Commission upon the capital represented by the assets employed by the London Transport Executive. It will be seen that, if allowance is made for an annual outgoing of the order of £5,400,000 for this purpose, the operations of London Transport resulted in an effective surplus in only the first of the six years and that, taking one year with another, its revenues over the whole period up to the end of 1953 fell short of the outgoings on this basis by some £12½ millions. Moreover, in considering this shortfall it must be borne in mind that it does not take account of the further sums which

will be required over and above those set aside for depreciation, to meet the cost of replacing rolling stock (particularly railway rolling stock—see paragraph 278) at the greatly enhanced prices which will have to be paid for it when large-scale replacements occur.

37. The trend of the results shown by the table set out above, of which further details are given in Appendix IV, is not reassuring. The estimated financial results for 1954 show an improvement compared with 1953 but we understand that the annual contribution to the central finances of the Commission will still not be met in full.

38. As the British Transport Commission have a statutory obligation to meet revenue outgoings, including capital charges, out of revenue receipts taking one year with another but have in fact a substantial accumulated deficit since commencing operations in 1948, the absence of an adequate contribution by London Transport to the Commission's central finances is unsatisfactory and unless London Transport are to be subsidised indefinitely steps to improve the finances of London Transport must be taken.

39. Questions relating to charges are excluded from our terms of reference but in considering the deficits incurred by the London Transport Executive in recent years it has to be remembered that the statutory procedure under which, during a long period of steadily rising costs, the Commission have to justify proposals for increased fares before the Transport Tribunal has led to a substantial time lag between an increase in costs and the granting of increases in the fares which may be charged. Provincial undertakings do not appear to be so adversely affected. If the rise in costs flattens out then the remedial effect of the increased charges becomes noticeable, but if costs continue to rise the time lag will remain and any increase which aims at covering the exact difference between costs and receipts at any one point of time will in practice mean a deficit on the year. For example, the bulk of the increased costs which formed the basis of the most recent increase in fares were being borne during substantially the whole of 1954; by the time the increased fares were introduced on 26th September, 1954, these increased costs had been carried for three-quarters of the year without the benefit of the increased fares designed to meet them. While this matter is not within our terms of reference we think it proper to point out that if by any means this time lag could be reduced the financial position in a year of increasing costs would be improved.

40. In considering the financial results of the London Transport Executive it is natural to compare those results with the results achieved by the London Passenger Transport Board in earlier years and with those achieved currently by other transport undertakings. Direct comparison, both with other years and with other undertakings, can be very misleading, however, because of the wide variations in conditions. Subject to these very important qualifications, which are explained in greater detail in later paragraphs, it is interesting to note that in the four years immediately before the war the London Passenger Transport Board made the following surpluses before providing for capital charges:—

	1935/6	1936/7	1937/8	1938/9
	£	£	£	£
Traffic Receipts	29,724,723	30,247,378	30,923,828	31,069,753
Other Revenue	1,591,846	1,654,382	1,682,590	1,627,432
	<hr/> 31,316,569	<hr/> 31,901,760	<hr/> 32,606,418	<hr/> 32,697,185
Working Expenses... ..	25,815,821	26,317,085	27,348,256	27,710,163
Miscellaneous Charges ...	298,077	293,779	Cr. 35,216	191,235
	<hr/> 26,113,898	<hr/> 26,610,864	<hr/> 27,313,040	<hr/> 27,901,398
Surplus available for Appropriation	<hr/> 5,202,671	<hr/> 5,290,896	<hr/> 5,293,378	<hr/> 4,795,787

41. In comparing the position of London Transport in 1953 with the position before the war it is relevant to point out that between 1938 and 1953 the increase in the general level of London Transport's costs was 130 per cent. while the increase in the general level of London Transport's fares (including the increase dating from 16th August, 1953) was only 78 per cent. in the same period. If London fares had been increased for 1952 and 1953 by the extent to which the value of money had fallen, without any falling off in passenger miles paid for, there would have been a very large surplus in 1952 and in 1953. In so far as changes in cost levels have been due to inflationary causes outside the control of the London Transport Executive it is reasonable to consider the efficiency of the undertaking on the basis of costs reduced to a common level (or on the basis that fares had been put up by the extent of the fall in the value of money). On such a basis the London Transport Executive must be credited with being no less efficient than the London Passenger Transport Board was in the pre-war years even though the Board made profits and the Executive have sustained losses.

42. There are, however, many factors which alter the profitability of transport between one year and another. An important factor is the standard of service provided, especially during the peak periods, including the length of time for which passengers have to queue for buses and the degree of overcrowding on the railways. A major difficulty in making any comparison is that there have been changes in the working and travelling habits of the public (including a shorter working week and a greater concentration of traffic in peak periods, especially in the evening), changes in the road traffic conditions and changes in the services provided including the scrapping of the trams. During the war the standard of service naturally fell very sharply and for several years after the war abnormal circumstances such as petrol rationing, shortages of buses, etc., resulted in heavier average loadings and a lower standard of service. Many of these special factors no longer exist but the concentration of passengers in two short peak periods has become even more acute and it appears that the pre-war standard of service in the peak periods has not yet been regained. We comment further on standards of service in Chapter XX.

43. Another important factor affecting comparisons between the pre-war financial results of the London Passenger Transport Board and the current results is the higher rate of fuel duty. We comment further on this matter in paragraphs 230 to 234.

44. Some of the factors which affect comparisons between the pre-war results and the current financial results of London Transport also affect comparisons between London Transport and other undertakings. Comparisons with other undertakings are affected by the following additional factors :

- (a) Differences in wage rates which are substantially higher in London.
- (b) Differences in the employees' working conditions (which affect particularly the efficiency of the arrangements for scheduling the road services).
- (c) Differences in the extent of traffic congestion which reduces the average speed of vehicles and thus increases costs per mile.
- (d) Differences in the terrain of the area served and in the road conditions of the respective areas.
- (e) The extensive use of underground and surface railways to deal with the peak-hour traffic in London.
- (f) Differences in the lengths of routes.

45. There are no transport undertakings either in Britain or overseas which are strictly comparable with that of London Transport. The best comparisons which can be made are between the central road services in London and the

bus and trolley-bus services of other large cities in this country but, as will be explained in detail as the different items of revenue and cost are examined, even here operating conditions are so different—London's transport system being many times the size of that of any of the other cities—that the results of the comparison must be treated with considerable reserve. In particular, as explained in paragraphs 87 to 90, comparisons between average figures of charges per mile as published can be very misleading and inferences drawn from these figures without any adjustments can be false. Moreover, the form of accounting used by London Transport differs somewhat from that used by the municipal undertakings and there are also some variations in the methods by which the different undertakings account for individual items of expenditure. The varying dates on which increases in fares have come into force during any year will also affect the comparative operating results.

46. Subject to these qualifications the following results of the Birmingham, Glasgow, Liverpool and Manchester transport undertakings in the twelve months which ended on 31st March, 1954 (31st May, 1954, for Glasgow), may be noted :—

	<i>Birmingham</i>	<i>Glasgow</i>	<i>Liverpool</i>	<i>Manchester</i>
	£	£	£	£
Total Income	6,690,599	8,349,512	4,985,398	5,901,664
Total Expenditure	6,523,106	8,237,316	4,962,029	5,512,037
<i>*Surplus before Taxation ...</i>	<u>167,493</u>	<u>112,196</u>	<u>23,369</u>	<u>389,627</u>

It will be seen that each of these four cities achieved a surplus (before taxation but after providing for capital charges) compared with London Transport's deficiency (allowing for a contribution of £5.4 millions to the central charges of the Commission) of about £3,407,000 in 1953.

47. London Transport's receipts from all sources in the year 1953 amounted to £70,210,000, more than eight times that of the next largest undertaking. London Transport's deficit in that year after deducting a contribution to central charges was about 1½d. per vehicle mile against a surplus of about ¾d. per vehicle mile (after providing for capital charges) in Birmingham, a surplus of rather less than ½d. in Glasgow, a surplus of just over ½d. in Liverpool and a surplus of about 2d. in Manchester. We repeat, however, that it is dangerous to make comparisons based on these figures without taking into account the matters mentioned in the preceding paragraphs.

48. Comparisons between the financial results achieved by London Transport and those of transport undertakings in large cities abroad are of very little value because of the differences in methods of operation, methods and standards of maintenance and the different systems of fares. For example, in the United States and some other countries the general practice is to have a fixed fare for any journey regardless of the length of the journey. In recent years many large city transport undertakings overseas have been making losses because of the difficulty experienced in raising fares in proportion to rising costs during the war and the post-war inflation. In the year ended June, 1952, Sydney (Australia) had a deficit of some £A3 millions after allowing for capital charges and Melbourne recorded a deficit after capital charges of about £A249,000 in the year which ended in June, 1954. Montreal had a deficit of about \$46,800 in 1953 after capital charges. Chicago made a profit of \$386,000 in 1952 after capital charges. New York had an operating surplus of some \$9½ millions in the eleven months which ended on 31st May, 1954, without provision for capital charges ; with such a provision a deficit would be shown.

* These figures are the net balances declared in the annual accounts of the undertakings concerned. The figures shown in Appendix V do not include certain miscellaneous receipts or appropriations other than current capital charges.

49. In considering possible measures to improve the economy and efficiency with which the Executive's undertaking is conducted it is convenient to examine first those factors (other than the actual fares charged) which affect receipts and then those factors which affect costs. The bus and trolley-bus services of London Transport have some problems different from those of the rail services (the tube railways and the Metropolitan and District lines) and the receipts and costs of these two main groups of services are therefore considered separately, as are also the miscellaneous sources of revenue such as advertising.

50. One of the most important of the factors which affect receipts is the extent to which unremunerative services are provided ; we discuss this matter in the next chapter.

CHAPTER VII

Unremunerative Services

51. It is not possible in any public transport system to charge each person carried a fare which exactly equals the cost of carrying him. Nor is it possible to ensure that at all times all services and routes will be equally profitable. Indeed, it is inevitable that any system in which public service vehicles run to regular timetables and at published fares will experience a wide variety of profitability on different routes, on different sections of a route, at different times of the day or on different days. There are transport systems in other countries, e.g., the United States, where a uniform charge is made for any journey whether that journey is half a mile or ten miles. In those systems the practice of making a flat charge is regarded as so administratively convenient that it is worth while sacrificing accuracy in relating the fare charged to the cost of the service provided. In the London Transport system the fare charged is (with minor exceptions) determined roughly by the length of the journey and to this extent the charge is not only a good deal more equitable as between one passenger and another than a flat charge per journey but is more closely related to the cost of the service for which it is paid.

52. There are, however, many factors which make it impossible to equate the fare charged and the cost of providing the transport for particular journeys or particular routes. With minor exceptions, it would be impracticable to have different fares according to the route travelled or the number of passengers on the bus or train although these factors are very relevant in determining the actual cost of a journey. It is clear, from the administrative machinery for determining fares which was established by the Transport Act, 1947, that the intention of the legislature was that, subject to certain exceptions and conditions, the fares should be reasonably uniform for the length of the journey taken. Indeed, any much more elaborate system would be administratively unworkable. Given the system of charges, some routes will be more profitable than others but there are nevertheless sound economic grounds for maintaining many of the apparently unprofitable services.

53. There are many routes or individual bus or train journeys which do not pay directly but which for various reasons are not truly uneconomic. These include services designed to develop future traffic and services of a "feeder" character which lead to profits in another part of the undertaking (e.g., where buses take passengers to and from a railway station a profit on the rail service may be attributable to some extent to the work of the buses so that the operation

of the bus service at a loss may be justified). In such cases, London Transport has the same kind of problem as any other transport undertaking, whether privately or publicly owned.

54. There is a further problem. It is seldom possible to analyse costs in a transport undertaking in such a way as to determine with precision the extent to which particular services pay or do not pay. Even where the fares collected on a particular service can be shown separately, and where a reasonable estimate can be made of the total costs of providing the service, an excess of total costs over fares collected on a particular route may not mean that it is uneconomical to provide the service on that route. In some of these cases the undertaking as a whole would be financially worse off if the service were withdrawn because only part of the costs would be saved.

55. A more difficult case is where for sections of a route a bus or train is heavily loaded and for other sections it is lightly loaded. Where it is impracticable to work the busy sections of a route without traversing the lightly loaded sections the appearance of empty buses or trains on these latter sections may be deceptive and may give the impression of uneconomic working. In such cases, however, there is need for vigilance and ingenuity in cutting down the running of the lightly loaded sections where this can be done without impairing the service on the heavily loaded sections and without losing more in fares than the costs which can be saved by this economy.

56. As with different sections of a route, so with different parts of the day. The pattern of London passenger traffic, like that of most large cities, is (from Monday to Friday) an early morning heavy peak load with workers getting from their homes to their places of employment, a moderately slack period during the greater part of the day and a very heavy peak load when nearly all the workers leave their jobs at the same time and want to get home as quickly as possible. This is followed by a slacker period until the services shut down. This pattern of traffic is not the same on all routes but it predominates and it creates the problem that large numbers of buses, trolley-buses and trains are required to carry the heavy loads of the short morning and evening peak traffic and that these numbers are excessive for the rest of the day during which many of the vehicles cannot be employed on services which cover their whole costs. As the vehicles are available and as the crews have to be paid for longer hours than those of the morning and evening peak traffic it may be profitable to operate vehicles in the off-peak periods if the fares collected just exceed the actual running costs other than wages (fuel, tyres, lubrication and additional cleaning and maintenance). Much of the running of buses and trains in the off-peak periods has this character and although the vehicles may be lightly loaded the financial results of running them may be better than those of laying them up during their slack periods.

57. Thus the familiar sight in London of many buses lightly loaded during the off-peak periods does not mean that as a consequence of running these buses London Transport are necessarily worse off than if the buses were withdrawn from service. On the contrary, the marginal cost of providing these services may be less than the marginal cost of providing extra buses and crews for the peak period when the buses are better loaded. The provision of extra vehicles and crews to reduce queueing time at the peak periods nearly always involves a reduction in profits (or an increase in losses) but the utilisation of vehicles and crews who would have to be paid in any case during off-peak periods during the day when they would otherwise be idle means extra profits even if the vehicles are only moderately loaded.

58. At our request London Transport supplied us with details of the average bus loadings for a number of routes both in the central area and in outlying areas, these loadings being shown separately for—

- (a) the morning rush period (8 a.m. to 9 a.m.) ;
- (b) the quieter midday period (10 a.m. to 4 p.m.) ;
- (c) the evening rush period (5 p.m. to 6 p.m.) ; and
- (d) the late evening period (7 p.m. to 11 p.m.).

59. The figures vary widely from one route to another but the general pattern is that in the morning buses travelling to the centre have average loadings of well over 50 passengers (which means that many of the buses are full while the others are nearly full). Buses travelling outwards at that time are generally poorly loaded but they must do the journeys in order to return with the heavy inward loads. The average load, taking buses travelling in both directions, is generally less than 30 during this period.

60. During the midday period the loadings are more nearly the same in each direction. On some routes buses which are less than half full in the midday period give average loadings which are as good as those of the more crowded buses in the peak period because the former are on average nearly half full in both directions. It does not follow that half-full buses in the centre of London in the midday period represent the ideal state of affairs ; as explained later, if the number of buses could be reduced and the loadings improved the financial position would be better and some relief would be afforded to traffic congestion.

61. The evening rush period repeats the morning rush but in the opposite direction and with the rush rather more severe and concentrated into a shorter period.

62. The late evening loadings vary widely from one route to another but many of them show fairly good average loadings in both directions.

63. The loadings of London Transport's rail services follow a similar pattern except that for most routes there is a still greater concentration of travelling in the two rush periods while the numbers to be carried at other times are proportionately smaller.

64. In these circumstances it is clear that there must be some routes which are very profitable because the loading is good in both directions for the greater part of the day and for the greater part of the route. On other routes, particularly those where there is an intense demand for travel one way in the morning and back in the evening but very little demand for the rest of the day, the average loadings are poor and the routes unprofitable. Some examples of the loadings of buses are given in Appendix VI and others in Part II of this Report. It will be seen that the average loadings on most routes are fairly good even in the off-peak periods but that the loadings on many routes are poor at the extremities. On some routes a less frequent service is provided at these extremities but given the location of the garages and the need for adequate space for standing and turning the buses at their terminals it is doubtful whether much net saving could be achieved by carrying this practice much further.

65. It is inevitable that, with these differences, the profits on some routes will be offset by losses on others. This arises out of the practice of charging fares according to scales which, with minor exceptions, are applied uniformly throughout the system. The fare for a journey of, say, two miles is roughly the same whether it is in North London or South London, whether it is on a lightly or heavily loaded route and whether it is by motor-bus, trolley-bus or train. There

are minor differences due to the location of fare stages on different routes and to historical features which involve the continuation of sub-standard fares, but apart from this there is no deliberate policy of charging more for a journey on one route than for a journey of the same length on another. It would be neither practicable nor desirable to have different charges according to the pattern of the traffic on different routes or according to the number of passengers on the bus or train—each of these factors being subject to a number of changing conditions such as the opening or closing of a factory, the season of the year or even the weather. Where a system of uniform fares per mile, subject to minor exceptions, is in force—a matter which is dealt with in paragraphs 110 to 118—and where the charges imposed are not more than is sufficient to cover total costs including capital charges for the system as a whole, it follows that some routes will be profitable and others unprofitable, but it does not follow that the withdrawal of those which are unprofitable because of the unfavourable pattern of traffic on those routes would be justified.

66. There are some routes where the number of passengers is so low or the distribution of passengers throughout the day so awkward that at the standard fares charged for London Transport as a whole the routes do not pay. It may be, however, that the value of such services to the travelling public is high and that, rather than see them withdrawn or restricted on the ground of unprofitability at the current level of fares, most of the users of those services would be prepared to pay higher fares which would cover the economic cost of the journeys. Although, as explained in paragraphs 110 to 118, the principle of charging a standard fare regardless of the pattern of traffic on a particular route is, in our judgment, generally sound there may be a few cases (especially in the more remote areas), such as the case referred to in paragraph 82, where it is uneconomic for London Transport to provide a service at standard fares and where there may be a case for allowing an independent operator to provide a special service possibly at a higher fare. This would reduce the loss falling upon London Transport or allow the provision of a service which London Transport are not at present prepared to give because it is so unprofitable. This matter is referred to again in paragraphs 83 and 117. If, however, the effective demand for the service were so weak that total receipts would fall if fares were raised to cover the economic cost of the service there would be no *economic* justification for providing or continuing to provide the service. Whether there are other grounds on which such services could be justified is dealt with in paragraph 69.

67. One of the factors which determine the cost of providing passenger transport by road is the average speed at which the bus or other vehicle can travel. The bus crew are paid on a time basis and the greater the number of miles travelled in the time for which they are paid the lower is the cost of wages per mile. One important consideration must therefore always be the effect of traffic congestion upon the cost of London Transport's road services and the influence of London Transport's own policy upon that congestion. Inadequate public services in a suburb may lead to the use of private cars which enter the central congested area and by adding to the congestion slow down the buses and thereby increase the operating costs of London Transport as well as diminish the undertaking's ability to serve the public cheaply and well. Taking a long view, therefore, in order to relieve congestion in the centre and so provide a faster and to that extent cheaper service for the system as a whole it may be sound policy for London Transport to operate some routes or some parts of routes which, taken alone, may appear to be uneconomic.

68. Perhaps the best illustration of the influence of one part of the undertaking upon the profits of another is afforded by the way in which the tube railways take a great part of the peak traffic in the mornings and evenings.

It is difficult to imagine what the congestion on London's roads would have been like if the tube railways had not been built. With the roads in their present state the additional buses and private cars would have slowed traffic almost to a stand-still. One result of slowing the traffic is to add very sharply to the cost of transport per passenger mile, as explained in paragraph 130, and there is no doubt that in the absence of the tube railways this cost and, therefore, the fares on buses and trolley-buses would have been substantially higher for a service which because of the traffic congestion would have been much poorer. Indeed, it is doubtful whether expenditure on the roads on the largest and most extravagant scale yet conceived for London would have been an effective reply to this congestion. This is a vital factor to take into account when considering the financial results of the London Transport railways or of particular sections of those railways.

69. The aim of the British Transport Commission and the London Transport Executive must clearly be to provide such an integrated service of public passenger transport over the whole of the London area that the general public within the area can look with confidence to public transport services for most of their needs rather than to private transport. There is a powerful interaction between the efficiency of the public services provided by London Transport (and British Railways) and traffic congestion in the central area. The better the public service the smaller will be the use of private cars travelling into the centre and therefore the greater the practicability of taking measures to relieve congestion, since not only will the roads be less fully occupied but the demand for parking space will fall. In turn, improvements in road conditions and a greater use of the public services, particularly in the off-peak periods, will result in speedier and more efficient public services and lower costs. While there will be many purposes for which people will prefer the use of private cars rather than public transport the narrow streets of London are unsuitable for and incapable of carrying any great increase in the number of vehicles. Measures for the improvement of the roads and particularly of strategic intersections are referred to in paragraphs 136 to 139 but none of the measures which are practicable could possibly cope with the increase in the use of private cars which would occur if London Transport became less efficient. There are, therefore, strong reasons of a general long-term character which support the view that London Transport should provide a reasonable standard of public transport throughout the whole area even though some of the routes, taken by themselves, may not be sufficiently remunerative.

70. In all the cases referred to in the foregoing paragraphs there may be justification on financial grounds, of a short- or long-term character, for operating services where the takings are less than the full cost of providing the services. There remains the difficult question whether London Transport should provide some transport services which cannot be justified on economic grounds. In their answer to our first question the London Transport Executive gave certain reasons, some of a theoretical character, for the provision of uneconomic services. Some members of the Committee disagreed about the validity of the reasons but we were unanimous in finding that in practice London Transport operated on grounds which were in general reasonable.

71. In any examination of this difficult subject the first task is to examine the duty which has been imposed by Acts of Parliament upon the British Transport Commission and the London Transport Executive.

72. The terms of the relevant sections of the London Passenger Transport Act, 1933, and of the Transport Acts of 1947 and 1953 have been given in paragraphs 16 to 21. The interpretation by the British Transport Commission and the London Transport Executive of their duties under these Acts has been

explained to us in their written and oral evidence which is in Part II of this Report. The London Transport Executive have stated that whether a particular service or route or scheduled journey pays or not is not the dominant consideration provided that the aggregate sum of the fares collected throughout the system covers the costs and the appropriate interest charges for the system as a whole. They have gone rather further and have said that there are a number of scheduled services which are making losses at the present time, have always made losses and always will do so but that it is the statutory duty of the Executive to provide these services notwithstanding the losses. In their view the profitable services must subsidise the unprofitable, the latter being as important as the former. The wording of some relevant parts of the Executive's answer is :—

“ A third choice theoretically open to the Executive of cutting out the most unprofitable services must be discarded, because such a policy could only result in certain districts or groups of passengers being deprived of public transport altogether while others were untouched. It would cause intense hardship to certain sections of the community. Such a course would be quite unacceptable and would be inconsistent with the Executive's obligation to provide an adequate service over their whole area.”

* * * * *

“ It is also important to be clear that the fact that a particular service is unremunerative is no evidence whatever that it is less necessary from the standpoint of public need than the generality of services that pay. On the contrary, there are many services which are unremunerative in themselves yet would be generally recognised as essential to the community's economic health and social life.”

* * * * *

“ . . . the Executive's decisions in regard to the provision of such (i.e. uneconomic) services are governed by their judgment of the public need. The standards of public need which justify giving or withholding a particular service have themselves been partly established over the years by past custom and public opinion ; but they cannot be reduced to a formula or defined precisely on paper.”

73. This interpretation of their duties obviously affects the financial results of the undertaking carried on by the London Transport Executive at any given level of fares. It would be quite possible for unprofitable services to be curtailed drastically or cut out altogether with the result that the ratio of takings to costs would alter so materially that a large surplus would be earned and fares could be reduced. On the other hand an attitude which resulted in granting all the many requests for additional or intensified services and which would provide comfortable travelling at peak periods would result in large losses at current fares, which would need to be raised substantially if the duty of making the undertaking as a whole solvent were to be fulfilled. Either course could be justified under the Executive's interpretation of their duty to provide an adequate and properly co-ordinated service as set out in their answer to our question.

74. In effect, the British Transport Commission and the London Transport Executive take the view that under the Acts they are the arbiters of the public need for transport. If there are transport services called for “ which are unremunerative in themselves yet would be generally recognised as essential to the community's economic health and social life ” then in their judgment those services should be provided and fares should be kept at a level which enables the profits on other parts of the transport system to pay for the uneconomic services.

75. We were anxious to find out how far this interpretation was pressed in practice. It appeared that if a service proved very uneconomic and if the degree of hardship on withdrawing it did not seem very great then that service would be withdrawn. To some extent the degree of hardship depended upon the number of persons suffering the hardship ; if the number of persons needing the service was very small then they had to be told that the service could not be justified. Where a more substantial number of persons was involved then the degree of hardship depended upon the availability of alternative means of public transport within reasonable walking distance, e.g. about half a mile.

76. We were given a number of examples of unprofitable services which were provided and a number which were refused. We felt that where a new service was demanded the London Transport Executive paid a good deal of attention to the economics of the proposal and did not in practice go much if at all beyond the point to which a transport undertaking which followed ordinary commercial principles would go. The words actually used by the Executive in refusing some requests for new transport facilities bear out this impression—for example “ it is essential that there should be no extension in the number of unremunerative services, the losses incurred on which have to be made good by the minority of remunerative services.” We were less convinced that in retaining the existing density of service on uneconomic routes London Transport adopted an equally firm attitude. An existing service had to be very unprofitable before it was withdrawn and in the face of public agitation and protest there was a natural reluctance to curtail existing services which were not well patronised. The examples which follow illustrate the circumstances in which London Transport—

- (a) have refused to operate a new service because it is too uneconomic ;
- (b) have continued to operate a long-standing uneconomic service ;
- (c) have introduced an experimental service to ascertain whether it is justified.

77. The first example is that of a new bus service (proposed by the Edmonton Borough Council and supported by other bodies and the Member of Parliament for one of the constituencies concerned) from Ponders End via Nightingale Road, Montagu Road, Dysons Road and Willoughby Lane to Northumberland Park. In favour of the service it was argued—

- (a) that it was needed for the residents in the thickly populated area east of Hertford Road ;
- (b) that it would be used by workers in the Charlton Road and Angel Road factories ;
- (c) that the absence of a service was causing a high rate of sickness and loss of production at the Charlton Road factories ;
- (d) that the unsatisfactory rail service caused congestion on the Hertford Road which was already carrying its full capacity of vehicles ;
- (e) that the new service would relieve the Hertford Road and Angel Road services and would also be useful outside peak hours.

78. The reasons given by London Transport for refusing the proposed service were—

- (a) that there was insufficient depth of development between Hertford Road and Montagu Road, a distance which never exceeded half a mile ;
- (b) that there were very frequent facilities within reasonable distance of the area it was proposed to serve ;
- (c) that the observed pedestrian movements were insufficient to support a bus service ;
- (d) that the proposed route had no off-peak traffic objectives, all the local shopping and entertainment facilities being in the main Hertford Road ;

(e) that the proposed service would probably be well patronised by factory workers for a few journeys in the peak periods but that this would not afford an economic basis of operation and that it was estimated that substantial losses would be incurred ;

(f) that it would not be practicable to reduce the existing facilities along Hertford Road and Angel Road to offset the cost of the suggested service.

In this instance the Edmonton Borough Council submitted their case to the Transport Users' Consultative Committee for London who upheld the view of the London Transport Executive.

79. The second example is that of a bus service (proposed by the Northfleet Urban District Council and supported by the Member of Parliament for Gravesend and by the North-West Kent Traffic Advisory Committee) between the Coldharbour Estate and Northfleet. In refusing the service London Transport said that they recognised the need for a bus facility from the Coldharbour Estate and had accordingly introduced a service, route 498, between Gravesend and the Coldharbour Estate. They further stated that Gravesend was the focal traffic objective for the area and that route 498 worked on a 20-minute frequency in peak hours and a 30-minute frequency at other times. Residents of the Coldharbour Estate wishing to travel to Northfleet could make the journey by interchange in Gravesend, or alternatively they could walk about half a mile to join at Perry Street routes 495 and 496 which served Northfleet. While London Transport recognised that there was a movement from the Coldharbour Estate to Northfleet as well as to Gravesend, a detailed examination of the traffic confirmed their decision that the bus service into Gravesend served the greater need and that there was insufficient potential traffic to warrant the introduction of a direct facility between the Coldharbour Estate and Northfleet. (London Transport subsequently agreed, at the request of the Transport Users' Consultative Committee for London, to introduce an experimental service between the Coldharbour Estate and Northfleet with an adjustment of the services to Gravesend.)

80. The next example is that of a service on route 168 which was extended some years ago from Wandsworth High Street up West Hill to the "Green Man", Putney Heath. In answer to oral questions London Transport explained that the traffic over this section was fairly good during the peak periods but light otherwise and that when figures were taken out for a week in February, 1953, there was a loss for the whole route of 8.9 pence per mile ; from this it is clear that the loss over the extension must be substantially higher. There appeared to be little prospect of saving part of the loss by withdrawing buses during the off-peak periods or of this section of the route becoming profitable in the foreseeable future, although the population in the Putney Heath area was expected to increase. At the time when this case was discussed by the Committee with representatives of London Transport there were no plans for withdrawing or curtailing the service.

81. In the next example, an application for a new service was put forward by the Sutton and Cheam Borough Council and supported by the Transport Users' Consultative Committee for London as well as by the Cuddington Way Residents' Association. The proposed route was between Cheam and Cuddington and the service was to be operated on weekdays only. One bus and two crews were needed. London Transport introduced the service experimentally but the receipts amounted to £5 a day only while expenses amounted to £15 a day from Monday to Friday and £18 on Saturday. This experimental service was withdrawn.

82. The last example which we wish to give is that of another experimental service. In response to suggestions from the Beaconsfield Urban District

Council, from the Lady Almoner of Cliveden Hospital and from individual visitors to the hospital, London Transport introduced in November, 1949, a service comprising one return journey on Wednesdays and Sundays between Beaconsfield and Cliveden Hospital to cater for the needs of visitors. The service was operated by a double-deck bus garaged at High Wycombe. The receipts secured were below the cost of operation and although the experimental period was extended on several occasions no better results were obtained and the service was withdrawn in October, 1952.

83. We examined many other cases but the above examples are, we believe, sufficient to show that in practice in arriving at their decisions London Transport have had regard to economy and efficiency. As explained in paragraph 66 it is possible that in some of the cases where a service has been refused because it is too uneconomic the need may be such that the traffic would bear a substantially higher fare than London Transport's standard fare appropriate to the distance. At a higher fare it might still be well worth while being able to use a bus service instead of having to resort to private cars, taxis or hired cars or to walking some distance to the nearest available public service. In such cases, and subject to the limitations referred to in paragraph 117, we consider that London Transport should be ready to allow, or even encourage, an independent operator to undertake a service which London Transport feel they must refuse. There are not likely to be many such cases and most of them would probably be of the kind referred to in paragraph 82, but where they occur it is possible that while the cost (including maintenance and overheads) of providing a London Transport bus complete with crew may be prohibitive for the light traffic to be carried the service might be provided economically by a small private operator who can fit the service in with other uses of his vehicle. There have already been one or two cases of this kind in which London Transport have agreed to operation by an independent operator and we consider that the practice might be extended where this would result in the provision of services which would otherwise be refused by London Transport or withdrawn on the ground that they are too unprofitable.

CHAPTER VIII

General Factors Affecting Receipts of London Transport's Road Services

Receipts of Road Services

84. The London Transport Executive operate double-deck and single-deck motor-buses and coaches which are powered by diesel engines and trolley-buses which are electrically driven. The profits from these operations consist principally of the difference between the total receipts from the passengers carried on London Transport's regular services and the total costs of operating and maintaining the vehicles. Other receipts (e.g., from advertising and from excursions, tours and private hire of buses and coaches) account for only a small proportion of the total and are dealt with separately in Chapter XI.

85. In 1953 London Transport's road services operated 424 million vehicle miles and the traffic receipts (including receipts from excursions, tours and private hire) amounted to 28·32d. per vehicle mile. Of these figures the motor-buses operating the central bus services accounted for 279 million vehicle miles and receipts of 28·78d. per vehicle mile ; the country buses for 47·9 million

vehicle miles and 24·30d. per vehicle mile ; the Green Line coaches for 23·4 million vehicle miles and 26·14d. per vehicle mile ; and the trolley-buses for 74·2 million vehicle miles and 29·83d. per vehicle mile.

86. There are no truly comparable services but the corresponding figures for some other large cities in the year 1953/54 are :—

		<i>Vehicle Miles</i>	<i>Traffic Receipts per Vehicle Mile</i>
Birmingham			
Motor-buses	... ..	48,220,032	32·291d.
Glasgow			
Tramways	... ..	30,396,885	34·277d.
Motor-buses	... ..	25,595,735	29·756d.
Trolley-buses	... ..	2,775,450	39·553d.
All Road Services	... ..	58,768,070	32·560d.
Liverpool			
Tramways	... ..	5,046,639	32·19d.
Motor-buses	... ..	32,051,575	31·68d.
All Services	... ..	37,098,214	31·75d.
Manchester			
Motor-buses	... ..	39,189,161	30·251d.
Trolley-buses	... ..	6,025,137	33·489d.
All Services	... ..	45,214,298	30·682d.

Further details of the receipts and costs per vehicle mile in London, Birmingham, Glasgow, Liverpool and Manchester will be found in Appendix V.

London and Municipal Fares

87. The average fare per passenger mile on London Transport's road services in 1953 is shown in the British Transport Commission's Report as 1·42d. (1·40d. for trolley-buses). If children's fares are excluded the average rises to 1·50d. but if early morning fares are included the average for adults is brought back to about 1·45d.

88. It is difficult to make sound comparisons between the fares charged in London and those charged in provincial cities because of the absence of adequate data for the compilation of the correct figures. There are many factors which detract from the value of such comparisons, such as the extent to which cheap early morning fares are permitted or the extent to which special "minimum" fares are charged. Moreover, where the statistics of transport undertakings (other than London Transport) show average fares per mile the figure is generally taken as a simple unweighted average of the fares per mile shown in the fare schedules, regardless of the differences between the numbers travelling at each of the fares shown. It has been necessary, therefore, for us to make a much closer study of the figures and to make adjustments to the published figures in order to arrive at a truer basis for comparison.

89. In practice, in most provincial undertakings (as in London) there are far more short-distance journeys than there are long-distance journeys. This would not matter if the fares charged were exactly proportional to the distance travelled but most provincial undertakings charge proportionately less for longer journeys so that the simple arithmetical average is misleading and does not show what has in fact been charged on average per mile travelled. If the published figures are corrected to give due weight to the actual journeys travelled

the resulting figures are quite different from the published figures. For example, the average adult fare per mile on the Glasgow tramways shown in the Report for Glasgow for the year ended 31st May, 1954, is 0·986d. but if the fares charged are proportionately weighted to take into account the numbers of journeys actually taken at different fares the true average is approximately 1·30d. Making the same correction for motor-buses in Glasgow the average fare per passenger mile rises from 1·152d. to 1·20d. and for trolley-buses from 1·252d. to 1·42d.* Applying the same principles to the motor-bus services operated by the Birmingham City Transport Department we get an average fare per passenger mile of 1·24d. for adults.

90. From the figures given above and from others which we have examined it appears that the average fares charged for road passenger transport in most large cities vary within the fairly narrow limits of about 1½d. to 1¾d. per mile. Within this range London Transport appear near the top limit but the differences between the London fares and those in provincial cities can be accounted for by two or three main factors such as the higher rates of wages paid in London and the slower speed of the buses and trolley-buses resulting from the spread of congestion in London over a larger area.

Average Loadings

91. If the traffic receipts on the motor-buses in London and in Birmingham and Glasgow are adjusted to a common level of fares it will be seen that the receipts per vehicle mile in London are about 20 per cent. below those in Glasgow and about 25 per cent below those in Birmingham. If any differences in the extent to which fares remain uncollected are ignored the only explanation of these differences in the receipts per vehicle mile in the various undertakings (after adjusting for differences in fare levels) must lie in the differences in loadings, i.e. the extent to which on average the buses are filled with passengers. Indeed, this factor of loading is the most important, the most variable and the most unpredictable of all the factors which determine the profitability of any passenger transport undertaking.

The Problem of Peak Hour Travel

92. If the number of passengers wishing to use the buses remained at a constant level in both directions at all times of the day London Transport could achieve a high average loading factor for their buses and receipts per vehicle mile would be very high—probably more than twice the present figure at present fares—because there would be fewer but better loaded buses. If the undertaking were in this happy position its finances could be kept on a sound basis at much reduced fares. Unfortunately, people who want to use the buses do not want to travel in what, for London Transport, would be this convenient way. In practice, as we have explained in paragraphs 56 to 63, very large numbers want to get from their homes to their places of work in the morning and want to get back in the evening but do not want to use the buses at other times except casually. The morning peak demand and the evening peak demand create a double problem for London Transport. The number of buses needed to carry the peak traffic and, in consequence, the capital investment in vehicles, garages and other

* In making these calculations, it has been necessary to make certain assumptions as to the number of children carried at different fares but the assumptions relate to a minor factor and the difference, if the assumptions are wrong, would be trifling. The comparisons made are between the figures for London Transport for 1953 and the figures for other undertakings during the latter part of the year ended 31st March, 1954 (31st May, 1954, for Glasgow). There have been some fare adjustments since. In so far as passengers do not travel the full stage for which they have paid the average fares will be under-stated; this applies to all undertakings and particularly where there are wide intervals between the different fares.

equipment and the numbers of operating staff have to be much greater than would be needed to carry the passengers who want to use the buses during the rest of the day. Secondly, almost all the passengers are travelling in one direction in the morning (generally towards the centre of London), so that the buses have to return lightly loaded or empty, and correspondingly they are travelling in the opposite direction in the evening, so that again—but in the reverse direction—the buses have to run lightly loaded or empty. Once a bus and its crew are on the road the cost of running does not vary very much and its profitability depends upon the extent to which it is loaded. The more even throughout the day the number of passengers who want to use the buses the fewer are the buses (and crews) needed to carry them and the greater the ratio of fares received to operating costs. The cost *per passenger mile* (which is what matters and what determines the fares which have to be charged) goes up if the average number of passengers in each bus throughout the day goes down and this happens when so many people want to travel in one direction and only in the peak periods.

93. The same problem arises in provincial cities, although it is more acute in some than in others. In industrial cities, owing to the non-existence of tube railways, the peak traffic problem may be more acute than in London. In most cities, however, the average distance between homes and places of work is much smaller than in London. For example, in Glasgow many workers go home for a midday meal; this makes another period during the day when more vehicles can be well loaded. Moreover, there are in Glasgow many tenement buildings and blocks of flats in or near the city centre and many people living there want to get to places of work which are away from the centre. These people are travelling against the corresponding stream of people coming to work in the centre. It also happens that there is an appreciable amount of travelling in the evening between the new housing estates around Glasgow and the older and more central areas where there are more amenities. The average loadings in Glasgow can, as a consequence of these conditions, be better than those in London and there is very little that London Transport can do about a difference of this kind in so far as it is caused by differences in the size of the two transport areas, the distribution of housing and places of work and the habits of the people.

94. There are, however, certain compensating factors in London. Our detailed examination of the loadings of many central bus routes has revealed that much of the off-peak traffic in London is two-way traffic and compares more favourably with the peak loadings, which are generally one-way, than appears from a more cursory examination. Moreover, in practice, a large part of the travel to and from work in London is done on the railway services of London Transport (the tube railways and the Metropolitan and District lines) and on the suburban lines of British Railways. There are many people who do the whole journey by bus but many more use the buses for short distances at either end of the journey or at both ends. About three-quarters of all journeys by bus or trolley-bus in London are journeys of two miles or less. These are important factors which must be taken into account in considering any proposals for altering the road services. Any improvement in the road services which had the effect of reducing the number of people using the rail services would improve neither travel facilities as a whole nor the financial position of London Transport.

95. As we have noted in paragraph 57, because of the pattern of traffic which London Transport's road services have to handle, the standard of service can be improved or reduced by having a greater or smaller fleet of buses and trolley-buses (with corresponding crews), provided that it is recognised that any improvement in service puts up the costs of travel very sharply because of the

poorer average loading. The buses and bus crews needed to carry all the passengers wanting to travel in the peak periods without any queueing and without standing would be far too many for the off-peak periods and the average loadings throughout the day would be worse than they are at present. If, on the other hand, London Transport were prepared to make people wait much longer during the peak periods or to cram the buses full of standing passengers as is the practice in many cities overseas the total number of buses and crews needed would be smaller, the average loading throughout the day would be better and the cost of travel would be lower. In other words, the cost of travel is determined to a considerable extent by the standard of service provided during the peak periods and particularly by the length of queueing time. We stress this point because in a number of representations which were made to us the fact that better service during the peak periods of travel pushes up costs sharply does not always seem to have been appreciated.

96. A question which naturally arises is whether London Transport have done all they can to deal with the problems arising from the necessity to provide the buses and crews which are needed to carry the heavy loads in the peak periods but which are not fully employed at other times. There are several possible courses of action, of which some are designed to improve the average loadings directly and others to reduce specific items of cost. These latter are considered in Chapter XII, which deals with the factors which affect the costs of operating the road services.

Staggering of Working Hours

97. The concentration of travel in two short periods has been a problem in London for many years. The following comment is taken from the Report of the London Passenger Transport Board for 1938/39 :—

“The Ministry of Transport has been giving consideration to the measures which might be taken to mitigate the congestion which now occurs in the peak hours on all forms of road and rail transport, and, in particular, has been endeavouring to secure from large employers of labour proposals for the staggering of hours at which employees begin and end their daily work, with a view to spreading the numbers travelling in the peak hours over a somewhat longer period. As a contribution to the solution of this problem the Board have altered the hours of attendance of the staff of certain of their offices, where this can be conveniently arranged without interference with the work of the Board as a whole. The experiment has been found to be satisfactory and its extension to other offices is under consideration.

It is hoped that other employers will take similar action which should result in a greater travelling comfort for the general public and in lessening the difficulty experienced by the Board in providing adequate accommodation in their trains and road vehicles by the partial flattening of the peaks of traffic movement.”

98. During the war when shortages of vehicles and the problems created by air raids made remedial action imperative, some success was achieved with the assistance of Local Transport Groups sponsored by the London and South-Eastern Regional Board for Industry, in getting hours of work “staggered”, especially in certain districts of outer London, so that both arrivals and departures were spread over a longer period. Most of these Local Transport Groups remain in existence.

99. Since the war several factors have led to an accentuation of the problem of peak period travel in London. The shortening of the hours of work, the

widespread introduction of the five-day week and the closing of most shops at 5.30 p.m. have all had the same general effect—namely, that more people wish to reach their places of employment in London at about 9 a.m. and to leave at 5.30 p.m. The problem became particularly acute shortly after the war in central London and a campaign launched by the Minister of Transport and operated through a number of voluntary Local Transport Group Committees,* covering most of central London, did something to alleviate the position. In 1949, however, the Committees were disbanded and the Minister announced that their responsibilities would be transferred to the Transport Users' Consultative Committee for London which was set up under the Transport Act, 1947.

100. The ground which was gained after the war has since been lost and the concentration of travel in two very short periods is now more acute than ever before. The peak periods are remarkably short—particularly in the evening. The sample figures given in Appendix VII of the working hours in certain large business premises in one area of central London indicate why in the morning there is an acute peak in a period of about 45 minutes before 9.15 a.m. and in the evening a corresponding and rather more acute peak for about 30 minutes between 5.30 p.m. and 6 p.m.

101. The staffs employed by the larger Government Departments in central London and their hours of work are shown in Appendix VII. It will be seen from these figures that most Government Departments are large contributors to the problem of peak-hour travel in London although the Ministry of Transport and Civil Aviation, as well as the London Transport Executive itself, have set a good example.

102. This is a matter which vitally affects not only the comfort of travel but also the finances of London Transport. Staggering of working hours, by spreading the periods of peak travel and therefore reducing the staff and equipment needed to carry people to and from work, could do more than any other single measure to improve the ratio of fares received to costs of operation. It could also do more than anything else to get rid of the acute discomfort of travel on the railways in the morning and evening and would do it more economically than any of the very costly alternatives which have been suggested.

103. The London Transport Executive have endeavoured to persuade large employers in central London to stagger their hours in the interests of their staff as well as in the interests of London Transport. These effects have achieved little success, possibly because responsibility for taking a lead in the matter may not have been clear. Evidence supplied to us suggests that some large employers would be willing to co-operate in comprehensive arrangements for staggering hours. It was represented to us, however, that efforts on these lines some years ago had been frustrated in the Oxford Street area by the opening of large public offices which released at the middle of the peak period in the evening a larger number of employees than the number which had been transferred to the off-peak times. This discouragement has left employers unwilling to take any action unless others, including Government Departments and the nationalised industries, co-operate.

104. It has been suggested to us that legislation should be introduced to make the staggering of working hours compulsory and that this legislation might provide for the setting up of local committees of employers in each area—these committees to have in some way the power to enforce agreement to a

* These should not be confused with the Local Transport Groups which were set up under the London and South Eastern Regional Board for Industry and which handled questions of freight transport as well as passenger transport.

scheme of staggering after all the parties concerned had been consulted. The objections to compulsion are many and serious : apart from any question of principle many businesses can hope to maintain their position in competitive trade only if they are open for business when their customers and competitors are open and in small businesses the staff employed may be too small to be split up as may be possible in large businesses, where by internal staggering the business can be adequately manned throughout the effective working day. We consider legislation on these lines to be undesirable but that a much more forceful campaign should be launched to induce businesses to stagger hours of work on a voluntary basis.

105. We are aware that the Minister of Transport and Civil Aviation has recently referred the problem to the Central Transport Consultative Committee, who have sought the views of the Transport Users' Consultative Committee for London. We consider, however, that this matter can best be handled by the establishment of voluntary local committees similar to the former Central London Local Transport Group Committees and in view of the importance of the matter, both to London Transport and to the travelling public, we recommend that a solution on these lines should be investigated as a matter of urgency.

106. Whatever is done will need the whole-hearted and vigorous support of the Government. The support of local authorities, trade associations and associations of employers and employees should also be sought as well as that of the London and South-Eastern Board for Industry. It is doubtful whether without powerful support from such bodies and leadership from the Ministry of Transport and Civil Aviation individual employers will take any action. We also suggest that an example should be set by Government departments and the nationalised industries and that the possibility of staggering school-children's morning hours should be examined.

107. It cannot be emphasised too strongly that a public transport service capable of carrying home in comfort all the people who stop work at exactly the same time is bound to be costly because this service must remain under-employed for the rest of the day ; and that if there is a refusal to stagger working hours there can be no justification for complaint against the cost of the luxury service demanded.

Different Systems of Charging Fares

108. It has been explained in earlier paragraphs that every step which improves the pattern of traffic, i.e. which helps to spread traffic more evenly throughout the day, is likely to make an improvement in the finances of London Transport. This has led us to enquire whether the present system of charging fares is conducive to efficient operation and good passenger loadings. As explained in paragraph 3 we do not consider that our terms of reference preclude us from considering this matter.

109. The questions which arise are :

- (a) Is the principle of an approximately uniform charge per mile (subject to minor exceptions) sound in the sense that it leads to good loadings and economical operation or would the adoption of a different principle enable London Transport to operate more economically and efficiently ?
- (b) Should London Transport provide special night services at fares higher than the standard fares ?
- (c) Would the charging of lower fares in the off-peak periods result in the better spreading of the traffic and therefore lead to better loadings and more economical working ?
- (d) What are the advantages and disadvantages from the operational point of view of special "workmen's" or "early morning" fares ?

The Standard Charge per Mile

110. The American system of a fixed charge for any journey regardless of the length of the journey, which we have already mentioned in paragraph 48, simplifies the collection of fares, and to this extent therefore both lowers the running costs of the undertaking and reduces losses through non-payment or under-payment of fares. Not only does it eliminate any need to issue a multiplicity of tickets but the simple task of collecting the uniform fare from each passenger can be, and is, entrusted to the driver (so that a conductor is dispensed with) in the case of road services and to a coin gate in the case of rail services. As the wages of bus crews are the largest single item in the cost per mile of the London Transport road services (and of most other urban passenger transport systems) it is obvious that the savings in costs if a system of fixed fares were introduced would be very large.

111. Nevertheless, apart from any other consideration, the arguments against the introduction of such a system in London appear to us to be overwhelming on account of the disastrous effect such a change would have upon the pattern of traffic offering. The fixed charge in New York on the subway is 15 cents, which at the current rate of exchange is just over one shilling. A similar fixed charge is made for bus or trolley-bus journeys in New York and other cities in the United States, most systems having a fixed fare of between 10 cents and 20 cents for any journey. Notwithstanding this apparently high fixed charge many urban transport undertakings in North America are unprofitable. We consider that a fixed charge of similar magnitude for any journey regardless of its length could not be contemplated in London. If such a course were adopted some long-distance travellers to work would find their fares considerably reduced but a very large number of short-distance and medium-distance travellers would find the increased burden so great that they would cease to use public transport for these journeys and would resort to walking, cycling or using private cars. The housewife who uses a bus for a short distance to do shopping and many other short-distance travellers (particularly those who use public transport during the off-peak times and are therefore very valuable customers) would find the cost prohibitive. Indeed it is clear that in most American cities the cost of the short ride is so high that relatively few members of the public use public transport for short journeys but many people are happy to "take a dollar ride for 15 cents", i.e. to use the system for relatively long journeys. To this extent it is fair to say that London Transport provide a service for short journeys which is not provided at all in most American cities because of the prohibitive level of the fixed charge per journey. There is no doubt that, though the British system of charging different fares according to the length of the journey is much more costly to operate than that used in the United States and elsewhere, this is inherent in the provision of the greater service provided. Adoption of the American system would in practice mean the loss of the greater part of the London Transport services for short journeys and is in our view out of the question. Many Americans who have visited this country regard the British system of charging fares according to the length of the journey as much sounder than their own and as a refinement in service which they would like to adopt in their own cities if they were able to do so.

112. There is a further important bearing upon the efficiency of the undertaking. In London, over 75 per cent. of journeys on the road services are of two miles or less. There is no doubt that the short journey by the casual or off-peak passenger does a great deal towards spreading the load better during the day. Any system which drove these passengers away from London Transport and concentrated London Transport's services on relatively long journeys by regular users during the peak periods would have a serious effect upon the average loadings and therefore upon the ratio of costs to receipts.

113. At the other end of the scale of refinement comes the system (or rather the theory) of charging a different fare according to the nature of the route and the pattern of traffic on the route, so as to bring the charge into line with the economic cost of providing the service. Such a principle has in fact been proposed to us. Should such a refinement be introduced in London ?

114. It is argued in favour of this proposal that, by more closely fitting the charge to the cost of the service provided, such a system would make it easier for London Transport to provide services for which there may be a small but urgent demand but which are unprofitable at the standard charge per mile. There may be a small community in an isolated or sparsely built-up area which would readily pay a fare higher than the standard fixed for London as a whole if this would result in the provision of a public transport service or would prevent the withdrawal of an existing unprofitable service.

115. A second point is advanced in favour of such a refinement. If existing uneconomic services could either be charged for at their true economic cost or be withdrawn then theoretically at any rate London Transport might be able to make its full contribution to central charges and even afford to reduce fares on the profitable routes or avoid further increases. In other words, because of the system of uniform charges there is at present one body of passengers which is subsidising another body and if the latter were to pay the full cost of their transport the former could theoretically be given their transport at a lower charge.

116. Against a refinement of this kind there have to be set, quite apart from any questions of principle, the overwhelming difficulties which would be encountered in fixing the fares to be charged and in operating such a complicated system. The Transport Tribunal at present have to consider a maximum charge for any fare stage (which in practice is much the same as a maximum charge for any mile) and certain sub-standard charges related to the maximum charge. If a different maximum charge had to be determined for every mile of the London Transport system the Tribunal's task would obviously become quite unwieldy. In practice, there would be so many complaints of inequity and so many changes in conditions that for a transport area the size of London the system would become unworkable.

117. However impracticable it may be as a general principle for London Transport to charge different fares on different routes an alternative course may be open in cases such as that referred to in paragraph 82 where a route is particularly unremunerative at the standard fares. As explained in paragraphs 66 and 83 it is possible that for such routes, where it is not practicable for London Transport to provide or continue a service, it might be advantageous in appropriate cases, where it would be reasonable to do so and where London Transport's economics and efficiency would not be affected adversely, to allow an independent operator to undertake the service at what might be the same or a higher scale of fares. The independent operator, though subject of course to the requirements of the Licensing Authority, may be freer than London Transport to adopt measures to make the route profitable.

118. There may be other instances, e.g. buses to factories which require special and intensively peaked services twice a day, where the provision of public transport at the standard fares can never, in the opinion of the London Transport Executive, be made to pay and where, therefore, if the service had to be withdrawn, resort would be had to other means such as taxis, private cars or bicycles, but where a public service would be welcome even at fares substantially higher than the standard fares fixed for London Transport's normal services. We suggest that in such cases, apart from the question of some other operator

providing a service at a fare above the standard fare, the possibility of extending the system of special contract carriages or the payment of a guaranteed minimum sum when buses are provided only for the employees of individual factories might be examined by London Transport.

Night Services

119. The cost of travel in certain circumstances may be substantially higher than the average cost owing to those circumstances and it may be that the provision of a service can then be justified only if a special charge is made. For example, in Birmingham, Glasgow and Manchester all-night services are operated but higher fares are charged. London Transport provide a few all-night bus and trolley-bus services but in no case is any fare charged above the standard fare. The demand for services during the night is probably as great in London as in other cities in this country, or it may be greater, but we were informed that the provision of more night services would be uneconomic at the standard fares. The objections to the introduction of extra late services at higher fares do not appear to us to be very strong. It is true that some of the users may be workers on night duty but at least one provincial city gives special vouchers to night workers enabling them to use the night services at day-time fares. We recommend that this matter of providing more bus services at night should be examined.

120. One important factor which must be borne in mind is that the provision of an adequate public transport service at night by discouraging the use of private cars for night journeys might encourage the use of public transport in the day-time as well. In their competition with the private car London Transport must be at a disadvantage if their services stop at an inconvenient time and this disadvantage will affect their competitive power during the day. We suggest that this subject should be re-examined to ascertain whether the provision of extra services at night, coupled with an increase in the fares for all night services, i.e. all services operating after some fixed time, might be justifiable (subject to any concession for night workers which might be deemed necessary)—

- (a) financially ;
- (b) as part of the duty to provide an integrated system of public transport throughout the area ; and
- (c) as part of a campaign to encourage the use of public transport instead of private transport.

Lower Fares in Off-peak Periods

121. One way of improving the average loading of buses or trains is to encourage in the off-peak periods journeys which otherwise would not be undertaken at all or would be undertaken during the peak period. On 12th January, 1954, the London Transport Executive and British Railways announced the introduction on the suburban rail services of an experiment of cheap return tickets limited to journeys to London in the evening off-peak period. The experiment was designed to encourage the use of the trains for journeys into the centre of London in the evening, the return journey outwards being made the same evening. The experiment was confined to rail travel as the issue of cheap evening tickets on London Transport's road services is deemed to be impracticable. No conclusions have yet been drawn from the experiment but we understand from London Transport that the sales of these tickets have been generally disappointing although there has been some improvement recently. In September, 1954, the Southern Region of British Railways announced that the sale of cheap evening fares was to cease in that Region but that an experiment with cheap midday fares was to be tried instead.

122. The possibility of using cheap fares to encourage more people to travel in the off-peak periods during the day-time has been referred to in a number of the public representations which we have received. The London Transport Executive have explained the adverse effects which a wider adoption of this course could have upon their net receipts. Unless cheap fares were to attract a substantial number of extra passengers the result would be a fall in traffic receipts. Apart from any transfer of passengers out of the peak period (which would lower costs), if the special fare during an off-peak period were half the standard fare then on average twice as many people would have to be carried if the gross receipts were to be maintained; and more than twice as many would have to be carried if there were to be any net gain to London Transport. If the special fare is three-quarters of the standard fare the numbers travelling must go up by one-third at least. The experience so far of the extent to which off-peak travel on London Transport is encouraged by cheap fares is generally disappointing and it is unlikely that much improvement in the finances of the London Transport Executive will come from this source. The circumstances of travel on the London Transport system, with its much shorter distances and relatively frequent services, are different from those of British Railways.

Workmen's Fares

123. The existence in London and some (but not all) other cities of a system which allows early morning travelling at sub-standard fares (workmen's fares) may have a marked effect upon the pattern of travel. No doubt the origin of this system was sociological and the original reasons for it may have disappeared. The provision of cheap fares for those members of the public who travel before a certain time may be no longer justifiable on the ground that they are drawn mainly from lower income groups. Nevertheless, if the existence of sub-standard early morning fares has the result that substantial numbers of passengers travel to their work before the morning peak period there is some gain to London Transport in this relief from peak loadings which might be lost if the cheap fares were withdrawn. In so far as arrival at work early carries with it the ability to leave early this advantage to London Transport will be felt also in a relief in the heavy afternoon peak period. If, however, the great majority of travellers who arrive early on cheap early morning tickets return during the evening peak period, when the congestion is rather worse than in the morning, London Transport will have only a slender gain to offset the loss of revenue resulting from the existence of the sub-standard fares. We have not considered whether there should be any modification in the system of early morning fares in order to improve London Transport's finances (as this subject is not within our terms of reference) but we suggest that before any modification is introduced the effect of the system upon traffic in the peak periods needs careful consideration. If the arrangements for the sale of these tickets were such as to encourage the passenger to make the return journey before or after the evening peak period the net result might be favourable to London Transport because of the great need to encourage travelling in the off-peak rather than in the peak periods.

Reductions of Services in Off-peak Periods

124. We have drawn attention in paragraphs 56 to 62 to some of the problems arising from the concentration of travel in two short peak periods and we have explained that lightly-loaded buses operated in the off-peak periods may, in certain circumstances, be making a better contribution to the finances of London Transport than well-loaded buses operated during the peak periods.

125. Nevertheless, average loadings can be improved and costs per passenger mile reduced by keeping fewer buses in service during off-peak periods than at the peak periods. The extent to which it is advantageous to reduce the off-peak

services depends, however, on a number of factors the effect of which is not the same in every undertaking. In many large provincial cities it is found to be worth while to withdraw a substantial number of buses from service during the day-time off-peak period : in Liverpool about 50 per cent. of the buses are withdrawn from service, and in Birmingham and Manchester about 70 per cent., compared with an average of only about 30 per cent. withdrawn in London.

126. We have explained in paragraph 93 that some large provincial undertakings, such as that in Glasgow, have the advantage of additional peak traffic at the middle of the day, together with a fair amount of off-peak traffic. On the other hand some other undertakings, e.g. that in Manchester, have very little midday or off-peak traffic. We have examined the loading figures for a number of routes in London and have found that the position varies considerably from route to route : in some industrial areas there is comparatively little off-peak travel but on some routes serving the West End and other centres of shopping and entertainment there is a good level of traffic throughout the day and in the evening.

127. The main factor which determines whether it is more profitable to withdraw buses from service during the off-peak periods than to maintain them in service is the volume of off-peak traffic available : the costs saved must be greater than the fares lost by taking the buses out of service.

128. There are, of course, certain costs which any undertaking can save by reducing off-peak services and, as we have pointed out in paragraph 56, these include fuel, tyres, lubrication and additional cleaning and maintenance costs. The wages of the bus crews are, however, the most important item of costs and if, as in London, the conditions of service of the bus crews and the system of drawing up the duty schedules are such that it is not possible to save the wages of the driver and conductor by withdrawing a bus from service during the day-time off-peak period then only a small average loading of the bus during this period may be needed to cover the remaining costs in circumstances in which another undertaking would find it more economical to withdraw the bus. Although, given these conditions, it may pay to keep a bus in service lightly loaded it remains true that any change in conditions which would make it more profitable to take these lightly-loaded buses off the road and so improve average loadings would improve the profitability of the undertaking as a whole. The conditions of service of drivers and conductors in London and in other cities differ materially and there is no doubt that these differences make it less profitable for London Transport than for other undertakings to reduce off-peak services and improve its financial position thereby. We refer to these conditions of service again in paragraphs 221 to 223.

129. Given these conditions of employment we doubt whether it would be profitable to make any substantial adjustment of London Transport's bus schedules in off-peak periods. Owing to the one-way character of most of the peak-period loadings and the impracticability, under present conditions, of making any substantial savings by further reductions in the off-peak services the average loadings on London Transport's road services must, unless there is an improvement in the pattern of traffic (e.g. such as might be brought about by the staggering of working hours) or a change in the conditions of employment (which would make possible a greater flexibility in the scheduling of services outside peak periods), remain less favourable than those of many provincial undertakings.

Traffic Congestion and its Alleviation

130. A further important factor which affects the loadings of the buses and the ratio of receipts to costs is traffic congestion. The effects are two-fold :

(a) irregularity of service and a loss of potential passengers and (b) a reduction in speed and a consequent reduction in the mileage which a bus can do in the day. The effect of the first factor is difficult to measure but from the number of complaints which are made of bunching and crawling buses and of delays and irregularity generally the effect must be substantial. The second factor can be more easily measured. It has been estimated by members of the London Transport Executive that if the central buses could travel on average one mile an hour faster the annual saving to London Transport would be of the order of £2 millions. This calculation is made by comparing the number of buses (and crews) needed to deal with the peak-period traffic at the average speeds now achieved and the smaller number which would be needed if the buses could get through their journeys one mile an hour more quickly. The additional benefit which might be obtained in the shape of increased use of public transport resulting from the improved facilities which could be offered is difficult to measure but likely to be of considerable importance. It will be seen from the figures in Appendix V that the working expenses per vehicle mile of London Transport's central buses, with an average speed of 11·24 m.p.h., amount to 27·62d., whereas the Green Line coaches, with an average speed of 18·38 m.p.h., cost only 18·46d. per vehicle mile.

131. The average speed of buses in London is appreciably lower than in most large provincial cities. The latest figures available are :—

London (Central Buses)	...	...	...	11·24 m.p.h.
Birmingham (Motor-buses)	...	...	...	12·12 m.p.h.
Glasgow (Motor-buses)	...	...	...	12·90 m.p.h.
Liverpool (Motor-buses)	...	...	...	12·99 m.p.h.
Manchester (Motor-buses)	...	...	...	12·00 m.p.h. (approx.)

One important difference is that whereas in the other cities mentioned the congestion is limited to a small area, perhaps one or two square miles, in London the congestion continues for many miles from the centre and for the whole of certain routes. The speed of 11·24 m.p.h. given for the London central bus services is the average for a very large number of routes serving not only the inner area of London but also the suburbs. In the inner area, where the greatest congestion exists, the average speed is much lower and therefore the average cost per passenger mile must be much greater. In large cities in North America the average speeds of buses tend to be even lower than that in London. In New York, for example, it is about 8 m.p.h. and in the centre and suburbs of Montreal it ranges from about 6 m.p.h. to 9·5 m.p.h.

132. Traffic congestion is not a problem for the London Transport Executive alone; it affects all businesses, professions and vocations in London. According to the Census of Traffic for 1952 buses and trolley-buses constitute on the average only about 11 per cent. of the total traffic in the Metropolitan Police District (although at a limited number of points in the central area it is somewhat more than 20 per cent.); and if such a substantial financial advantage could be secured by London Transport from a higher average speed a considerable financial advantage would also be secured by other road users.

133. The number of private cars registered in the County of London and in Middlesex has gone up very sharply compared with pre-war years, the increase between September, 1938, and September, 1953, being from 260,000 to 324,000; similar increases have occurred in each of the Home Counties and there is no sign of any change in the trend. The further use of private cars in the central area is bound to lead to still further congestion unless some drastic action is taken.

134. We do not consider that our terms of reference extend to a detailed examination of the whole of this difficult problem of traffic congestion in London. Because of the effect upon London Transport's finances, however, we would draw attention to the views and recommendations of other bodies upon the subject. We refer particularly to the views of the London County Council as set out in the County of London Development Plan, 1951, and in evidence to us, to the comments of the London and Home Counties Traffic Advisory Committee in their annual reports and their special report on London Traffic Congestion, to the report of the Working Party on Car Parking in the Inner Area of London and to the Annual Reports of the Commissioner of Police of the Metropolis.

135. The problem can be tackled in several different ways. The streets and important street intersections can be improved ; better parking facilities can be provided ; more rigid rules relating to kerb-side waiting, loading and unloading can be introduced (which might include prohibition of the use of the kerb-side for these purposes within a stated distance of bus stops) ; additional traffic regulations such as the extended use of one-way streets can be introduced ; or certain streets might be reserved for public transport at certain times of the day. It is not for us to assess the relative merits of these various suggestions.

136. It appears that there has been some reluctance hitherto to accord London more than a small share of the limited resources made available for road improvements, but the statement made in the House of Commons on 17th November, 1954, suggests that there may be more adequate expenditure in the future. The Ministry's officials, in their written answer to our question on this subject and orally, have pointed out how expensive it would be to make effective improvements to London's streets and street intersections and how much cheaper it is to make similar improvements outside London. It is not for us to say whether there is a good case for giving London preference over other parts of the country in any apportionment of capital expenditure upon roads but we consider that the attitude which has been adopted in this matter is unsound even as a matter of economics. The estimated saving to London Transport alone shows how great would be the economy to the community as a whole if some adequate steps were taken to increase the speed of traffic by improving London's principal streets and road intersections. It is not a question of giving London preference but of bringing London road conditions a little nearer to the standards of other parts of the country. As a purely business proposition expenditure on roads and road intersections in London is far sounder than the expenditure of corresponding sums in many other parts of the country, provided always that parallel measures, such as those referred to in paragraph 135, are adopted to ensure that the advantages of this expenditure are not quickly nullified by such an increase in private motor traffic in the central area that congestion is as bad as ever.

137. The reasons which have been given for the absence of substantial road improvements, based on the fact that capital expenditure has had to be restricted in recent years, appear to us to be weak. It is fifty years since any major street improvement was made in central London. Since that time there have been many different Governments and many different economic conditions, including the financial stringency following two wars, and periods of large unemployment as well as periods of full employment. We feel that this matter is one which has been neglected by successive Governments and that unless a more vigorous and enlightened policy is adopted traffic conditions in London will get worse and as a by-product London Transport's finances will get worse.

We cannot do better than quote the words of the London and Home Counties Traffic Advisory Committee in their report for 1951/52 :—

“ It has become abundantly clear that road improvements which are restricted solely to minor repairs or partial widening cannot ease the increasing pressure of London's traffic, and that the real remedy lies in large-scale widening and replanning of roads to enable the extra traffic in Inner London to circulate more freely. This has been stressed in the Annual Report of the Commissioner of Police of the Metropolis for the Year 1951.

There has, however, been no major improvement in the roads in Inner London since 1905, when Kingsway and Aldwych were completed. At that time, traffic was composed almost entirely of horse-drawn vehicles.

Inner London streets designed for a limited number of horse-drawn vehicles cannot be expected to accommodate the vast and ever-increasing volume of motor traffic without a drastic slowing-down of vehicle speeds.

One of the chief difficulties is that road space at certain major road intersections is insufficient to allow of free movement, particularly for turning vehicles. This is a serious cause of congestion. Some of the worst intersections in Inner London from this point of view are Piccadilly Circus, Oxford Circus, Cambridge Circus and St. Giles' Circus.”

* * * * *

“ The interim report of the Committee on Road Safety, dated 1944, made it clear that no road programme could be made effective without expenditure on a generous scale and the Committee suggested that when consideration was given to this expenditure regard should be had to the country's financial loss arising from road accidents and congestion.

Almost every conceivable palliative has already been suggested and most have been tried but the inescapable fact remains that, for over half a century, practically nothing has been done to improve Inner London's road system. Restrictive methods, on which we are continually being asked to advise, can only afford temporary relief and cannot provide a solution to the problem as a whole.”

138. A number of different authorities, both local and central, are concerned in this matter but we are assured by the Ministry's officials that the failure to cope with this problem is not to be attributed to any division of authority. The responsibility to-day lies fairly and squarely upon the Ministry of Transport and Civil Aviation, which has to find the greater part of the cost. We understand that the London County Council and other authorities have been and are ready to press forward with schemes for the improvement of road conditions in London and that the decision rests with the Government. We recommend that, having regard to the economic soundness of taking vigorous remedial action and to the extravagance of not taking such action, the matter should be the subject of early consideration by the Government. We take the view that the answers which have been given on the subject of cost and priority are both inadequate and unsound except in relation to periods of the utmost economic stringency. We consider this to be one of the most important factors affecting the efficiency and economy of London Transport.

139. This matter cannot be dissociated from the subject of the proportions in which public and private means of passenger transport are used in central London. London Transport have explained clearly and convincingly that the

use of private cars for the transport of passengers to and from the central area is not, as some people believe, any effective relief to London Transport's services. The private car is much less efficient than a public service vehicle and the number of persons carried for the amount of road space occupied by a car is extremely small. For example, it has been estimated that, of about 2 million persons carried into central London each day in 1952 only 130,000 were carried by private cars as against 630,000 in buses, 600,000 by the London Transport railways and 580,000 by British Railways. In these circumstances we were surprised that London Transport have not brought greater pressure to bear upon the authorities concerned with the restriction of the kerbside parking of private cars.

140. For example, we were informed that London Transport's application to run special buses to the Chelsea Flower Show in 1952 was turned down on the ground that the roads in that area would be so congested by the parked private cars of visitors to the Flower Show that the police could not cope with a special bus service for visitors. This attitude appeared to us to ignore the principles which the London Transport Executive have (rightly in our judgment) advocated—namely that where there is restricted road space the public road service vehicle because of its much greater efficiency should be given precedence over private cars. It has been estimated that where large numbers have to be carried the double-deck bus, for the road space which it occupies, is 40 times as efficient as the private car. London Transport accepted the ruling that they should not have a special service to deal with the visitors to the Chelsea Flower Show and made no application for such a service in 1953, even though regular users of the ordinary buses passing close to the Flower Show were unable to get on to the buses because they were full of workers employed at the Show. In our view this matter should have been pressed much more vigorously and if necessary a special reference made to it in the Annual Report of the British Transport Commission.

141. In the United States there is one private car for every three persons ; in Britain there is one car for every eighteen persons. At present in the London area buses and trolley-buses constitute an average of about 11 per cent. of all the vehicles using the roads, rising to just over 20 per cent. at a few points. In causing congestion, therefore, public transport vehicles are a relatively small factor and as they are many times more efficient than private cars for transporting large numbers of people to and from their places of work the increased use of public transport vehicles at the expense of private cars for this purpose would materially reduce traffic congestion. This increased use of public transport, both above and below ground, is dependent upon many factors including the efficiency of the service provided. If the standard of service fell, or if the car population rose by a proportion which would still leave us much below the American figures of private car use, the congestion in London would bring all forms of road transport to a stand-still for long stretches during the day. Some freedom to use private cars in the central areas must, in our view, remain and road improvements for this traffic, as well as for goods traffic and public passenger transport, are both essential and urgent. But in London, with its comparatively narrow streets, the solution of the problem of traffic congestion should not be sought in the wholesale provision of wide parkways and traffic tunnels but in a combination of—

- (a) expenditure upon essential improvements at the worst spots ;
- (b) improved public transport both above and below ground and a greater use of that transport ;
- (c) firmer kerb-side waiting, loading and unloading rules designed to encourage the use of public transport instead of private transport in the central area.

Firmer kerb-side parking rules such as those referred to in the statement made in the House of Commons on 17th November, 1954, are more easily justified and become more acceptable if the public passenger transport system is efficient and is a reasonable alternative to the use of the private car for a large number of those who now use private cars or who would do so if there were road improvements. The provision of additional parking facilities at suburban railway stations (both London Transport and British Railways) would encourage the use of public transport into the central area.

142. It is easy to point at the congestion caused by private vehicles parked by the kerb-side and particularly by motor lorries loading or unloading near busy intersections, but it has to be remembered that London Transport's policy of having few off-road parking facilities of their own in the central area is itself a factor contributing to congestion. Although we do not consider proposals for the establishment of large bus terminals in the centre of London to be practicable or desirable we are of the opinion that further consideration should be given to the improvement of interchange or terminal points in the centre of London and the provision by London Transport of their own off-road parking facilities in the central area at those points where buses terminate or turn round. This matter is referred to again in paragraphs 305 and 306.

CHAPTER IX

Operating Factors Affecting Receipts of London Transport's Road Services

143. Given the absence of any very effective action so far by public authorities for the relief of traffic congestion in London we have considered proposals designed to reduce the number of buses operating in the central area, to increase the average loading of the buses in this area both in the peak periods and in the off-peak periods and so to make a contribution not only to the finances of London Transport but to the relief of the congestion.

144. Apart from possible extensions of the underground railway system proposals designed to achieve these aims include—

- (a) the so-called "Wheel Plan" which would involve a revolutionary change in the system of bus operation in central London ;
- (b) shortening or other adjustment of existing services ;
- (c) provision of some special services in the central area in peak periods in addition to the normal services ;
- (d) provision of "limited stop" services ;
- (e) introduction of circular bus routes ;
- (f) increase in flexibility of bus time schedules.

The "Wheel Plan"

145. A scheme has been put forward by the Greater London Area Council of the National Chamber of Trade to improve the road passenger service in central London in such a way as

- (a) to reduce the number of buses passing through the central area and so make a contribution to the solution of the problem of traffic congestion ;
- (b) to improve the loading of buses in this area and so improve the finances of London Transport ;

(c) to give a more regular and reliable service of buses both in this central area and in the suburban area which lies around it.

146. It is argued by the proposers of the scheme that the present system of bus services in London is unsuitable in the conditions obtaining in London and that a radical change in the system is necessary. The most unsatisfactory feature of the present system, it is argued, is the long bus route which starts from an outer suburb, runs through the central area and goes on to a point in another suburb. Because of the traffic congestion in the central area buses are unable to keep to their scheduled times and the result is that buses tend to be bunched together with long gaps in between the bunches. The second and subsequent buses in such a bunch are poorly loaded while the first bus is crowded with passengers who would have caught a later bus if all the buses had been on time. As a consequence the first bus has no chance of making up lost time and the other buses have little to do but tail along behind the busy leading bus. Thus not only are the services in the central area disorganised but buses leave the central area badly out of time and as a consequence the suburban areas also get an irregular and unreliable service because of the traffic congestion in the central area.

147. Under the "Wheel Plan" the existing through bus services would be replaced by a system of (a) suburban buses which would terminate at points on the edge of the central area and (b) central bus services which would not go outside the central area (which would be bounded by such points as Hyde Park Corner, Marble Arch, Kings Cross, London Bridge and Victoria). The suburban buses would turn round and return at once from their points of contact with the central area, without any "standover" waiting time; in this way, it is suggested, the suburban services provided by these buses would have a much better chance of running punctually than the existing buses which have long routes passing through the central area. The buses in the central area would ply continually between given points on the edge of the area; some of them might follow circular routes or might return by a slightly different route in order to avoid having to turn round at awkward places. It has been suggested that because of the multiplicity of bus routes passing through the central area their average loadings at both peak and off-peak times are bad and that therefore the number of buses needed to carry the existing load of passengers in the central area by special services of buses that would not leave the area would be much smaller than the present number. According to the proposers, there would be a substantial saving of buses in the central area; some of these buses could be used to augment services in the suburban areas and the total number of buses used could be curtailed with a substantial saving in cost to London Transport.

148. At first sight the "Wheel Plan" appears to be logical and attractive. Nevertheless, in the form in which it has been put forward we consider the scheme to be impracticable. Our reasons are not based upon technical imperfections in the services proposed for the central area but upon passenger traffic considerations which the authors of the scheme appear to have under-estimated.

149. The pattern of passenger traffic on the road services in London is extremely complex. A large part of the medium-distance and long-distance suburban travelling to and from work in central London is done by the London Transport railway services and by the suburban lines of British Railways. Many short- and medium-distance journeys between the suburbs and central London are, however, made by bus and trolley-bus and to this there is added a substantial volume of travelling by bus to British Railways or London Transport railway stations. This use of the buses frequently occurs at both ends of a journey the greater part of which is done by train. As stated in paragraph 94 more than 75 per cent. of all passenger journeys on the road services of London

Transport are of two miles or less ; many of these journeys start just outside the central area and finish just inside it. The purposes for which these short journeys are made are very varied and difficult to classify. There is not in London as there is in some provincial cities a fairly simple pattern of morning journeys by bus to work in the centre and evening journeys from work away from the centre, separated by a fairly slack period during which the road services are used mainly by women for shopping purposes. Because of this variety of uses any attempt to make London's bus services conform to a rigid pattern is likely to fail and to cause chaotic conditions.

150. Under the "Wheel Plan" passengers wishing to travel by bus into the central area would have to change from the suburban to the central services at one of the key changing points at the edge of the central area. During peak periods the numbers of passengers who would have to change from one bus to another would run into thousands at each key point and special facilities would be needed not only for the turning of the buses, both suburban and central, but also for the marshalling of the passengers moving from one set of buses to the other. Adequate free space does not exist at these points at the present time and the cost of acquiring space for this purpose would be extremely high.

151. There are several other considerations from the passenger's point of view. One is that every passenger prefers a through journey to a journey which involves a change and while the hardships of queueing during a peak period may be endured with reasonable fortitude if the bus goes through to the passenger's destination the breaking of the journey, involving further queueing, would probably be more than many passengers would be prepared to endure. Some of these passengers would be tempted to abandon the public transport system in favour of other means of transport such as walking, cycling and private cars and there might be, because of the added discomforts, a substantial loss of passenger traffic as well as increased traffic congestion.

152. Another consideration from the passenger's point of view is that many of the short journeys at the present time start just outside the edge of the central area envisaged by the authors of the "Wheel Plan" and finish inside the area. The journey is often one mile or less and the minimum fare is paid. The "Wheel Plan" makes no provision for the transport of these passengers, who would not only be faced with all the inconvenience of the changeover from the suburban to the central bus services and with the extra time involved but would also have to pay two minimum fares instead of one. A system of transfer tickets to avoid double fares would be impracticable because of the burden of issuing and checking these tickets during the rush hours which would be imposed on conductors.

153. Another consideration is that, as we have pointed out in paragraph 60, the average off-peak loadings of buses traversing central London are in many cases reasonably good and in some cases very profitable to London Transport. Any substantial reduction in the number of buses operating in the central area in off-peak periods (as well as peak periods) as envisaged in the "Wheel Plan" might well discourage the use of public transport in off-peak periods and thus adversely affect London Transport's financial position.

154. We consider, therefore, that the physical conditions of London and the complexity of its road passenger traffic are such as to make the introduction of the "Wheel Plan" impracticable. We believe, however, that some action might be possible which would not be so revolutionary as the "Wheel Plan" but which would help to remedy some of the weaknesses of the existing system of providing road passenger services, particularly during the peak periods in central London.

Shortening of Bus Services

155. One obvious method of dealing with the heavy surges of traffic which arise at certain points in the peak periods is to shorten the routes of certain buses by turning them at the critical points. Indeed, London Transport have in recent years, and still more in recent months, done something to shorten services or parts of services with the object of providing the greatest concentration of buses where they are most needed. Certain buses on routes which normally run from one suburban area to another, passing through central London, are scheduled, during the peak periods, to terminate midway along the route to deal with heavy surges of traffic at such points as Oxford Circus or Charing Cross.

156. London Transport have in recent months also introduced a new feature in the central bus services which should go some way towards curing the problem of delays and of buses bunching together because of abnormal traffic conditions. This new feature consists of posting inspectors at certain points with authority not only to supervise and adjust the general running of the buses but also if necessary to turn a bus from one direction to the other with the result that a bus comes out of a group of buses that have bunched together because of congestion and fills up a gap in service in the reverse direction. This practice adds a flexibility to the system which has previously been absent.

157. We believe that there is scope for further extensions of the practices described in paragraphs 155 and 156 but we are unaware of the extent to which they can be developed without modification of the agreements with the trade union concerned. At the present time a large number of services run through the central area and the total time for the running of each service is made up of times settled for each stage of the journey. Each of these, as well as the whole time schedule, is the subject of agreement between the management and the trade union, although emergency changes can be made at short notice. There are also agreed terminus standing times for the buses between journeys. This system is regarded by the London Transport Executive and by the trade union as the most workable for the purpose of preserving regularity of service; similar arrangements are common to all large road passenger transport undertakings. This system must be borne in mind in any consideration of proposals for radical modification of the bus services.

158. We feel that even if every step is taken by London Transport to modify the existing system by the methods described in paragraphs 155 and 156 there will still remain an unsatisfactory state of affairs in the centre of London where the sight of half empty or nearly empty buses at one point and long queues at another will remain the cause of a good deal of irritation and criticism of London Transport unless everything possible is done not only to explain the reasons for the existence of the unfilled buses but also to provide for the special conditions in the central area.

Special Bus Services in Central London

159. The most important cause of the unfilled buses, apart from the disorganisation of services by traffic congestion, is the prevalence of surges of traffic at certain points followed by heavy unloading at other points. This may happen more than once on different sections of a single route. It is inevitable, therefore, that buses will arrive nearly empty at some points if they are to be available for the next load. This pattern of traffic is very different from the conditions found in many provincial cities where most of the passengers travel by bus direct from their homes to two or three central points in the morning and back again from the same points in the evening.

160. In order to cope with these special circumstances and difficulties of the central area of London we think that consideration should be given by London Transport to the introduction in this area of greater flexibility and greater variety in the nature of the road services provided. In particular we consider that, without abandoning the present system of through routes (although the frequency of these might be reduced), the introduction of a few special bus services in the central area might be of assistance in coping with the heavy surge of traffic which occurs at certain times of the day, where this traffic is fairly homogeneous and consists of large numbers of workers wanting to travel between two points either in or just outside the central area. These points are generally railway stations of London Transport or the termini of British Railways. If such services were distinguished by special indicators or if the buses were of a special type or colour they would be recognised at once. Such buses might be designed to operate on a flat fare basis in order to reduce the heavy work falling upon the conductor for these short but heavily loaded runs. There may well be many technical problems to be solved before any scheme of this kind could be introduced but we think that the matter should be thoroughly examined.

"Limited Stop" Bus Services

161. Another suggestion which has been made to us is that there should be introduced in the London area "limited stop" buses on the lines of those operated in some large provincial cities, either for the whole day or during the rush hours only. These limited stop buses would, it is suggested, be subject to a minimum fare so that no short-distance passengers would be carried.

162. There are important differences between London and the provincial cities in question which make the introduction of limited stop services of this kind both less necessary and less practicable. In the first place London has its system of tube railways and the suburban services of British Railways which provide for much of the kind of traffic carried by limited stop buses in provincial cities. Secondly, there already exists the Green Line coach system which is a limited stop service with minimum fares (although it may be argued that something intermediate, between the existing central bus services and the Green Line services, is needed, particularly in districts not adequately served by the railways). Finally, the traffic congestion in London exists over a much bigger area than in the provincial cities and in practice a limited stop bus might not do a journey much more quickly than an ordinary bus.

163. There is another factor which would have to be taken into account when considering limited stop services. At the present time, during the peak period, many intending passengers have to queue and are unable to get on the first bus of the service which they require. Irritation would be caused if such people, waiting in queues, saw limited stop buses not fully loaded passing their stopping place. This might often happen since the position in London, where passengers in the central area are picked up at a large number of stopping places, is different from the position in many provincial cities where large numbers of passengers board the buses at central bus stations from which at the evening peak hour practically all buses leave either full or nearly full. We are doubtful, therefore, whether in London the introduction of limited stop buses, with or without minimum fares, in the ordinary central bus services would make a material contribution to the problem of moving passenger traffic on the roads during the peak periods. Different considerations apply to limited stop arrangements for any special services of the type referred to in paragraphs 159 and 160.

Circular Bus Routes

164. Suggestions have been made that the road services of London Transport could be improved by the introduction of a number of circular routes in place of through routes. There are several objections to the introduction of a greater number of circular routes in the central area of London. From the operating aspect a continuous circular route with no standover time makes it more difficult to maintain the time schedule and delays may become cumulative for certain buses so that the result may well be more bunching together of buses. From the passenger's point of view there is the further consideration that the straight route from the point at which he boards a bus to the point at which he alights is to be preferred since this is likely to be the quickest route and the cheapest if fares are fixed roughly on a mileage basis. We do not recommend the introduction, in the central area of London, of a greater number of circular routes except where a more circuitous route would avoid traffic congestion.

Bus Timings

165. In order to overcome the differences in traffic conditions at different times of the day or on different days of the week many time schedules do not provide for a uniform journey time all day and every day, more time being allowed when the roads are likely to be congested. From some figures given to us by the London Transport Executive the differences between the maximum and minimum times for certain routes appear to be rather small and we suggest that consideration should be given to making these differences larger where it is possible and to the introduction of greater variety than exists at present. For example, on the central road services it is the practice to allow the full running time throughout the whole period from 9.0 a.m. to 6.30 p.m. from Monday to Friday and to reduce the running time only before and after that period. It is possible that London Transport have found from experience that the traffic is reasonably uniform throughout the whole of the period 9.0 a.m. to 6.30 p.m. but it is difficult to believe that this uniformity exists for all routes of the central bus services.

Standing Passengers

166. Under the Public Service Vehicles and Trolley Vehicles (Carrying Capacity) Regulations, 1954, a bus or trolley-bus may carry up to eight standing passengers during hours of peak traffic or in circumstances where hardship would be caused if a smaller number were carried. In the central area of London, however, up to five standing passengers may be carried at the following times :—

Monday to Friday	...	...	12.0 midnight–9.30 a.m. 4.30 p.m.–7.0 p.m. 10.30 p.m.–12.0 midnight
Saturday	...	...	12.0 midnight–9.30 a.m. 12.0 noon–2.0 p.m. 10.30 p.m.–12.0 midnight
Sunday	...	...	10.30 p.m.–12.0 midnight

No standing passengers are allowed at other times. These arrangements for London have been agreed between the London Transport Executive and the trade union concerned and are intended to provide for the special circumstances of London passenger traffic.

167. The modern double-deck bus is not designed to carry a large number of standing passengers and the efficiency of the collection of fares by the conductor is likely to fall sharply as the number of standing passengers increases; this question of the collection of fares is dealt with in paragraphs 171 to 178. It is probable that if there were more than about five passengers standing in a

London bus the fares lost through non-collection would exceed the additional fares collected from the additional passengers carried. This is particularly likely to be true for journeys where the rush of short-distance passenger traffic is very heavy for a very short period. On such journeys the conductor's task of getting round the bus to collect fares is difficult and sometimes almost impossible even without having to cope with standing passengers and in these cases there is little doubt that the existence of standing passengers means a substantial loss of fares.

168. There are several aspects of this matter which need consideration. Although from the point of view of the finances of London Transport and from the point of view of the conductor's convenience and efficiency the carrying of more standing passengers is objectionable the point of view of the would-be passengers left behind is entirely different. It is true also that if by carrying more standing passengers the number of buses needed to carry the load of traffic during the peak hours could be reduced there might be a substantial off-setting gain to London Transport.

169. The outstanding difference between the practice in London and the practice in large cities overseas is that in London the road vehicles, whether buses or trolley-buses, are designed to carry practically all their passengers as seated passengers both in the busy periods and in the slack periods of the day, whereas in most cities overseas as many as one half or more of the passengers during the busy times are carried as standing passengers. This makes it possible to employ buses which have their seating capacity reasonably full during the day but which at the periods of peak travel have also a very large number of standing passengers. This practice of having large numbers of standing passengers operates not only in Europe but throughout the North American continent. We consider, however, that the London system is suitable for conditions in London where the distances travelled vary so greatly and a differential fare is charged according to the distance travelled. Circumstances of fare collection with the scale of fares operative in London virtually rule out the practice followed overseas of having very large numbers of standing passengers during the peak periods.

170. On balance we consider that any increase in the number of standing passengers is undesirable and in this opinion we are very much influenced by the considerations of fare collection dealt with in paragraphs 171 to 178. On the other hand the restriction of standing passengers to certain periods of the day appears to us to be illogical. There are bound to be surges of traffic at different times of the day and on different days, especially in cases of emergency or public festivals, when the number of passengers during off-peak periods is abnormal. If it is considered reasonable to carry five standing passengers during the peak periods we see no particular reason for allowing no standing passengers at other times. The general standard of conduct and courtesy of the conductors and drivers is such that London Transport are rightly proud of the reputation of their employees but there are certain matters which lead to public irritation and resentment. The fact that no standing passengers are allowed at certain periods of the day is the subject of much criticism, the public's resentment being especially evident during inclement weather and when queues are long. We recommend that this matter should be re-examined through the appropriate machinery.

Collection of Fares

171. We have received many representations on the subject of uncollected fares. The subject has two broad divisions : first there is the passenger who pays no fare at all for his journey and secondly there is the passenger who pays a fare but overrides the stage for which he has paid. Both problems are important

to London Transport and it is clear from the information which the London Transport Executive have supplied to us that the matter is of much greater importance for the road services than it is for the rail services, where the number of cases is smaller and where conditions make identification and prosecution much easier.

172. This problem of uncollected and under-collected fares exists in every transport undertaking ; the proportion of fares lost in this way appears to be greater in many undertakings than in London and somewhat smaller in others but reliable comparisons are difficult. Nevertheless, the psychological effect both upon conductors and upon passengers of the knowledge that some passengers fail to pay their fare or their whole fare is so important that we consider that every step should be taken to reduce the loss to a minimum.

173. Some fares remain uncollected through no fault either of the passenger or of the conductor. This occurs especially where there is a heavy intake of passengers at one point and a corresponding off-loading of the bus at another point a short distance further along the route. In such a case it may be impossible for the most efficient conductor, using the most efficient equipment, to get round the whole bus before all the passengers concerned wish to alight. Sometimes the bus driver co-operates with the conductor by travelling slowly along such a section of the route to give the conductor a chance of collecting the fares before the passengers alight but there is a limit to the extent to which a bus can dawdle for this purpose.

174. We consider that for heavily loaded sections of routes of this kind the introduction of special services on the lines suggested in paragraphs 159 and 160 should be considered by London Transport. Nothing is more likely to encourage the passenger who wishes to dodge paying his fare than the knowledge that other passengers have been unable to pay and nothing is more likely to reduce the efficiency of conductors who are less conscientious than their colleagues than the knowledge that on occasions it is impossible to collect all their fares.

175. Various devices to ensure that all passengers pay their fares have been adopted in certain other cities and we consider that similar devices should also be examined in London. A reduction in the size of the London buses would, of course, reduce the maximum number of fares to be collected but we do not consider that this is in any way a solution of the problem. Apart from other considerations, with the congested road conditions in London every effort should be made to carry, during the peak periods, as many passengers as is practicable in each bus since the road space occupied by a large double-deck bus is in fact less than that occupied by a large single-deck bus carrying a smaller number of passengers.

176. A device which has been adopted in at least one city is to employ a second conductor on buses at certain heavily loaded traffic points, the additional conductor moving from one bus to the next. A few senior conductors are used for this purpose. We have been informed that it is doubtful whether in these cases the additional fares collected equal the additional cost incurred but the indirect effects may be of greater significance than the immediate financial result if the practice makes a substantial contribution towards assuring the travelling public that everybody pays his fare.

177. Another device is to issue tickets to intending passengers waiting in queues. This can have only very limited application in London owing to the complexity of the passenger traffic (although it is done at a few points) but it might be usefully employed for any special services in the central area, such as those suggested in paragraphs 159 and 160, where a flat fare might operate over the whole route so that the question of overriding a fare stage could not arise.

178. When every allowance has been made for passengers who are unable to pay their fares owing to the heavy loading of the buses, or for conductors who are unable in the time available to collect all the fares, it has to be admitted that there is still a substantial number of passengers who deliberately avoid paying their fares or deliberately ride beyond the stage for which they have paid. We have been given particulars of measures which London Transport have introduced in recent months to deal more effectively with these delinquents and we are satisfied that these measures, especially if they are accompanied by other measures along the lines suggested in the foregoing paragraphs, together with vigorous prosecution of offenders and greater publicity, will make a substantial reduction in the loss of fares through non-collection or under-collection.

“ Standee ” Buses

179. Suggestions have been made to us that London Transport ought to operate buses designed to carry comparatively few seated passengers but a large number of standing passengers. It is suggested that the advantages of such a bus are—

- (a) that it would enable a large number of passengers to be carried conveniently and quickly for short journeys particularly during the peak hours ;
- (b) that it might reduce the losses from uncollected fares by having all the passengers on a single deck instead of two decks.

180. We have seen one kind of “ standee ” vehicle (a trolley-bus) in another city and we are satisfied that it would be unsuitable for London conditions. Indeed, whether the vehicle is suitable for the conditions in the city in which it operates is open to question but we would express no opinion on the subject. It is fairly clear, however, from the evidence which we obtained about this trolley-bus that it was difficult for the vehicle to keep to its scheduled time because the fares had to be collected as passengers entered the vehicle and this meant a longer stop whenever passengers were picked up. The delay was substantial if the number of passengers wishing to board the vehicle was large. We gathered also that this “ standee ” trolley-bus was unpopular both with the drivers because of the difficulty of keeping to time and with the conductors because of the difficulty of controlling passengers from a seat fixed near the entrance at the rear. One conductor informed us that she was unable to take any action against passengers who were overriding their fare stage because she was unable to leave the fixed collecting point at the entrance. In this conductor's view, so far from making it easier to collect fares and be sure that nobody escaped, this “ standee ” vehicle made it more difficult.

181. We have also seen a “ standee ” bus of a different type (with a central door and no fixed seat for the conductor) which appeared to be very suitable for the factory services for which it is mostly used. We were informed that buses of this type were popular both with the bus crews and with the public. “ Standee ” buses may well have advantages for special services of this kind or in other special circumstances, particularly where there is a flat fare for the whole route or where the number of different fares is small. In the light of our recommendation about the introduction of some special bus services (see paragraphs 159 and 160), we suggest that London Transport might consider whether there are circumstances in which such a bus could profitably be used in London. We are convinced, however, that a vehicle of this kind would not be suitable as a substitute for the normal double-deck bus for the conventional services.

182. Proposals have also been made that London buses should have removable or adjustable seats so that when there is a large surge of traffic a substantial number of seats could be adjusted or removed to provide for an increase in the number of standing passengers. We do not consider these proposals to be practicable. Apart from the difficulties of fare collection to which reference has already been made there would be extra work involved in removing or adjusting the seats without dislocating the time schedules of the buses. Either proposal would result in a reduction in the standard of comfort and possible losses from this cause would have to be set against any extra fares which might be collected in the peak periods.

CHAPTER X

Factors Affecting Receipts of London Transport's Rail Services

183. The railway system operated by the London Transport Executive comprises the tube railways (the Piccadilly, Northern, Central and Bakerloo lines) and the other railways formerly operated by the London Passenger Transport Board, namely the Metropolitan and District lines. The steam and electric services running between the suburbs and the main line termini are operated by the British Transport Commission and are not under the control of the London Transport Executive.

184. The London Transport railway system has no parallel in the United Kingdom. The total track mileage (including sidings) of the London Transport lines is 637 miles ; the rolling stock owned by the Executive includes 4,099 passenger cars ; 209 million car miles were operated in 1953 including 14 million car miles run over the British Railways system ; and 580 million passenger journeys were made. The Glasgow Underground system—the only other system of the kind in the United Kingdom—has 50 passenger cars and operated just under $1\frac{1}{2}$ million car miles in 1953–54.

185. The average traffic receipts obtained from the operation of the London Transport railways amounted to 23·04d. per car mile in 1953 compared with 28·32d. per vehicle mile from London Transport's road services. The corresponding figure for the Glasgow Underground system is 51·44d. per car mile but a direct comparison is of no value on account of the differences in the size and character of the two undertakings and the different systems of calculation employed.

186. The passenger traffic on the railway services of London Transport causes peak period problems which are even more acute than those on the road services. For peak period travel, however, the tube railways can move passenger traffic far more effectively than any road service. A member of the Road Research Laboratory of the Department of Scientific and Industrial Research has estimated that the most intensive bus service can move passengers from one point to another at the rate of 18,000 persons in an hour but that a tube railway, with trains proceeding at maximum frequency, can move 42,000 persons in an hour.

187. The average journey on the London Transport railways is much longer than the average passenger journey by the road services ; the respective figures are 5·75 miles and 2·31 miles. The rail services are heavily loaded for the peak

period travel to work in the morning and back home in the evening but do not carry so much casual or short travel as the road services. This is a natural difference between the services and one which could never be wholly removed. It follows that the service of trains required in the peak periods is altogether excessive for the off-peak periods. The problem for London Transport, with the rail services as with the road services, is to provide adequate services in the peak periods whilst reducing the service in the off-peak periods in so far as this will save some part of the expense of running trains comparatively empty.

188. Economies can be achieved by reducing the frequency of the services during off-peak periods and the intervals between trains are in fact much wider on all lines at off-peak times than during the peak periods when the intervals are as short as 90 seconds on some lines.

189. Another step which has been taken by London Transport to reduce uneconomical working on the railways in the off-peak periods is to uncouple parts of trains so that the trains running in the off-peak periods are shorter than the full trains available for the peak periods. As the cost of power is the highest single item of the cost of running electric trains and as this cost is nearly proportional to the weight of the train a substantial saving can be effected by this uncoupling. This method of reducing uneconomical working is less likely to discourage passenger traffic than reductions in the frequency of the service.

190. A third method of economy practised by London Transport is to shorten the routes of certain trains during off-peak periods on those lines which have a reasonable volume of traffic throughout the day in the central area of London but little off-peak demand on the outer sections of the route.

191. These three methods of reducing off-peak services enable London Transport to withdraw some 60 to 70 per cent. of the total number of passenger cars from service during off-peak periods. There are several important considerations which have to be taken into account in connection with the possibility of any further economies of this kind.

192. The first consideration relates to the arrangement of the duties of the motormen, guards and other railway staff. It is already difficult to arrange satisfactory duties on account of the concentration of traffic in two short peak periods and the average daily time paid for but not actually worked ("making up" time) is already for this reason somewhat greater on the rail services than on the road services. If the off-peak rail services were reduced to an even greater extent than at present it might well be that the staff concerned would still have to be paid so that this item of costs would not be saved.

193. The second consideration is the likelihood that off-peak traffic would be discouraged if the services were reduced much further. We have referred in Chapter VII to the importance of encouraging the use of public transport rather than private transport in London at both peak and off-peak times; this applies to the rail services as well as the road services. The efforts made to encourage evening off-peak travel by cheap tickets have been referred to in paragraph 121.

194. We have obtained from London Transport information concerning the average off-peak loadings of the trains on each line. On the whole the loadings appear to be reasonable given the conditions in which the services operate and to be more than sufficient, in most cases, to cover the additional costs incurred in running the train instead of withdrawing it from service. There may not be much more that London Transport could do to cut down unprofitable working by reducing the frequency, length or routes of the trains during off-peak periods but we suggest that there are still some sections of the railways (e.g. the northern

end of the Metropolitan line to Watford) which might be able to contribute further economies, especially if there were closer co-ordination of London Transport's services with those of British Railways.

195. One obvious difference between the road services and the rail services is that the rail tracks are free from external traffic conditions ; the extent to which passengers can be moved quickly and in volume by rail during the peak periods therefore depends solely upon the efficiency of the services provided (although conditions on the roads, such as fog or ice, can affect the volume of traffic using the railways).

196. We have studied the operation of the London Transport railways by travelling on the various lines and by examination of conditions at stations both in the centre and in the outer areas. Our general conclusion is that the methods of operation are efficient and that everything possible is being done by London Transport to cope with the problem of moving as quickly as possible the large crowds who use these railways at the peak periods of the day.

197. There are several factors which may affect efficiency of operation during the peak periods including

- (a) the minimum headway possible between trains while allowing an adequate margin of safety ;
- (b) the speed and length of the trains and their powers of acceleration and braking ;
- (c) the speed of loading and unloading trains where the passenger traffic is heavy ;
- (d) the capacity of the station approaches, of the layout of the stations and of the platforms to cope with the passengers and with longer trains in the peak periods.

In theory any one of these factors might cause a bottleneck so that improvement in the other factors would make no difference to the carrying capacity of the line. In practice, the most important factors are the speed of loading and unloading of passengers and the capacity of certain railway stations, especially in central London. Various proposals which have been made to us for running " limited stop " trains during peak periods would be ineffective because they relate to a factor which does not cause a bottleneck. It is little use attempting to run a train fast between two important stations if the time which the train would have spent at intermediate stations is spent instead in a tunnel because the train in front is delayed at a congested station.

198. The frequency of a rail service can be increased, and the acute pressure experienced during peak periods reduced, if the trains can approach the train in front more closely without reducing the factor of safety. The London Transport Executive have introduced an improved signalling device on certain sections of the railways which enables this to be done. The system enables the second train to move into a station sooner after the departure of the train in front. Although the installation of this device is said to be expensive we consider that the importance of reducing the acute pressure during the peak periods is such that its introduction on other sections should not be delayed on account of expense. It may be that the immediate result is to be found in the added comfort of passengers rather than in any increase in the passenger receipts but in the long run every device of this kind is likely to react favourably upon passenger receipts.

199. We would point out that with this improved signalling arrangement London Transport are able to bring trains into stations with greater frequency but the speed with which the trains can be loaded in the stations depends to a large extent upon the co-operation of the travelling public. The knowledge that

the next following train will arrive within a few seconds should make it easier for London Transport to persuade passengers to exercise more restraint in attempting to board trains which are already overcrowded and so slowing up the service.

200. Apart from an extended use of this signalling device it is difficult to see how the existing methods of operating the London Transport railways could be greatly improved, with direct or indirect benefits to the financial position of the undertaking, without substantial capital expenditure. We refer in Chapter XIV to certain projects which would involve such expenditure, such as the construction of new underground railways, the introduction of more modern rolling stock and the reconstruction of some stations in central London.

201. The staggering of working hours in central London, to which we have referred in Chapter VIII, would benefit the rail services no less than the road services although the benefit might be felt in the form of greater comfort for the passengers rather than a direct relief of the financial position of the undertaking.

CHAPTER XI

Miscellaneous Receipts

202. The receipts of London Transport other than the traffic receipts derived from the ordinary passenger services are of a comparatively minor character only. They consist of receipts from advertising, from the letting of shop premises and other sites on railway and other property and from the use of buses for tours, excursions and private hire work.

Commercial Advertising

203. The letting of advertisement space on London Transport property and vehicles is handled by the Commercial Advertisement Division of the British Transport Commission and is therefore outside the direct control of the London Transport Executive. Between 1948 and 1953 the expenses incurred in advertising on London Transport properties and vehicles increased from £429,875 to £554,672, while gross receipts declined from £1,732,519 to £1,689,905. This is unsatisfactory and we are of opinion that there should be an investigation to see whether the matter is handled with the vigour and efficiency needed to maintain or if possible increase net receipts. It is possible that the concentration of the whole of this function, for London Transport and for the other undertakings controlled by the British Transport Commission, in one central division of the Commission may have divorced the advertiser from those who are in closest contact with the advertising facility and may be the cause of this decline. We raised this question of the decline in advertisement revenue with the British Transport Commission, who informed us that the matter was under review.

Excursions and Tours

204. The use of London Transport buses and coaches for excursions and tours and for private hire work, particularly during the off-peak periods, can be very profitable but the extent to which they can be used in this way is very limited.

Estimated net receipts from excursions and tours have risen in recent years as follows :—

1950	...	...	£2,074
1951	...	...	—£7,064 (deficit)
1952	...	...	£6,369
1953	...	...	£36,162

(The deficit sustained in 1951 is accounted for by the cost of the special publicity required to re-establish the excursion and tour business which had ceased during the war.) We understand that London Transport are endeavouring to develop this business but that the possibility of expansion is limited by the changes introduced by the Transport Act, 1953. Prior to 1953 London Transport had been able to engage in the popular excursion traffic between London and coastal towns within a radius of 100 miles but this profitable business is no longer permitted. Nevertheless there may be scope for some further development of this excursion and tour business within the present limits and we suggest that special attention should be devoted to this matter.

Private Hire

205. Similar considerations apply to the development of private hire and contract work, from which the estimated net receipts in 1953 amounted to about £59,000. The changes introduced by the Transport Act, 1953, restricted the London Transport Executive's participation in private hire work to the London Passenger Transport Area. We suggest, however, that there may be scope for more energetic development of this business within the limited area.

206. From the point of view of London Transport the restrictions imposed by the 1953 Act clearly have an adverse effect on the undertaking's ability to operate with full efficiency and economy. From this point of view there is obviously something to be said for restoration of the lost rights. Whether this should be done having regard to the position of other operators is not a matter on which we would wish to make any recommendation.

Exchanges with Other Operators

207. It has been suggested that London Transport might be able to add to their marginal revenue by hiring out vehicles to other bus or coach operators during the off-peak periods or alternatively might hire vehicles from other operators during the peak periods so as to reduce the total fleet which London Transport need during the peak periods.

208. London Transport's double-deck buses, which are the vehicles most likely to be available for other business in off-peak periods, are designed for London bus work and would not be very suitable for many of the excursions and tours undertaken by private operators. Moreover, the need to have London Transport's buses and coaches available with absolute reliability immediately they are required at the beginning of the peak periods limits the periods during which these vehicles could be made available to other operators.

209. The suggestion that vehicles might be hired by London Transport from other operators for the peak period services appears attractive at first sight because many operators have vehicles for which the peak demand is at other times. However, we are informed that there are very few vehicles likely to be available which could stand up to the arduous conditions of the peak period services of London Transport. Experience during the war and in the immediate post-war years has shown that vehicles which for acceleration, braking, manoeuvrability or reliability fall below the exacting standards required in

London are unable to keep their time schedule and can disorganise a service. London Transport take the view that it is more efficient to operate only with their standard buses and with their regular crews and we feel that the evidence to the contrary is not strong enough to allow us to dissent from this view although we suggest that some vehicles owned by other operators might be suitable for some of the special bus services operated by London Transport such as those used for services to factories.

210. Although there may not be much scope for London Transport to use other operators' vehicles, or for other operators to use London Transport's vehicles, we feel that there may be some scope for closer co-ordination of the resources available. We suggest that London Transport and the other operators, whose areas adjoin the London Passenger Transport Area (including undertakings controlled by the British Transport Commission), should discuss the matter with the aim of making the most economical use of all available vehicles and crews.

Freight Traffic

211. When comparing the profitability of London Transport with that of the majority of railway undertakings it has to be borne in mind that the rail services of London Transport have no freight traffic (although a few freight trains pass over certain sections of the London Transport Executive's lines). Most railway undertakings have both a passenger service and a freight service—the freight trains running, to a large extent, during the periods when the lines are not needed for heavy passenger traffic. Having regard to what has been said about the heavily peaked character of the rail services of London Transport it will be seen that financially the absence of any freight services which could use the lines in the off-peak periods is a serious, but unavoidable, disadvantage to London Transport. It has been suggested that this is a factor which should be taken into account when apportioning revenue between the London suburban lines of British Railways and the London Transport Executive's undertaking and indeed that some allocation of freight revenue might be made to London Transport. We do not consider that this question of apportioning the receipts of the British Transport Commission falls within our terms of reference but we draw attention to this feature of London Transport as one which must be taken into account when looking at the financial results as a measure of the efficiency and economy with which the undertaking is conducted.

CHAPTER XII

Costs of the Road Services

212. The total working expenses, including depreciation, of the bus and coach services of London Transport amounted in 1953 to £41,069,125 against gross receipts of £40,882,281, leaving a deficit of £186,844 without any contribution towards the central finances of the British Transport Commission. There was a small profit on the operation of the trolley-buses amounting to £130,618 and a larger profit on the London Transport railways of £692,538. When to these results there is added the miscellaneous income from advertising, rents, etc., there was, as we have explained in paragraphs 35 and 36, a net revenue of

£1,993,000 which fell short by £3,407,000 of the figure of £5,400,000 which is regarded as a reasonable contribution by London Transport to the central finances of the British Transport Commission to cover the central services provided and interest on the capital invested in the undertaking.

213. It will be seen that the road services, and particularly the motor-bus services, are apparently less profitable than the rail services. This is in direct contrast to the results of pre-war days but it must be remembered that the capital invested in the rail services of London Transport is substantially greater than that invested in the road services. If an apportionment of the Commission's central charges between the rail services and the road services of London Transport is made on the basis of the net assets as shown in the Commission's accounts the division of the deficit of about £3,400,000 for 1953 would be about £900,000 for the road services and about £2,500,000 for the rail services (see Appendix V). On any basis of calculation which took the assets at today's replacement costs the deficit would be larger and a still greater portion of it would be attributable to the railways.

214. In seeking for the causes of the unprofitability of London Transport's road services we have already examined some of the factors whose main influence is upon the receipts (although several of the factors referred to in Chapters VIII and IX are no less relevant to the costs of operating the services than to the receipts). We now turn to the factors which affect mainly the costs of operation, to enquire whether there are any measures which could be taken by London Transport to improve economy of operation by reducing costs directly.

215. A direct comparison of costs per vehicle mile can be most misleading unless the receipts per vehicle mile are taken into account as well. If one undertaking cuts down services in the off-peak periods to a minimum but has to pay substantial sums to the bus crews for "making up" time and for "spreadover" time during the period of waiting between duty at the morning peak period and duty at the evening peak period then the cost of wages per vehicle mile operated will probably be higher than the cost incurred by an undertaking which runs more buses during the off-peak periods even though those buses are poorly loaded; in the latter case there are more miles worked for the wages paid but the average receipts per vehicle mile will be lower. A much more scientific basis of comparison would be the *receipts per passenger mile* and the *costs per passenger mile*. In other words, if we could compare what it has cost on average for London Transport to carry each passenger for each mile that he has been carried with the corresponding average cost in other cities we could eliminate the arbitrary factors and could get a comparison which would be independent of a corresponding variation on the receipts side. Unfortunately, although the number of passengers carried is available for all undertakings the distance travelled by those passengers is not available in respect of most provincial cities and we must fall back, therefore, upon comparisons of costs per vehicle mile whilst recognising the weaknesses in such comparisons. Except where otherwise stated the figures given in paragraphs 217 to 259 relate to the central buses of London Transport and to the motor-buses of other undertakings.

216. For the central buses of London Transport traffic receipts per vehicle mile (excluding advertising, etc.), in 1953 amounted to 28·78d. against which the working expenses amounted to 27·62d. (exclusive of provisions for depreciation and renewal which amounted to 1·65d.), leaving a surplus of 1·16d. per vehicle mile without any contribution to the British Transport Commission's central charges. If depreciation and renewal are taken into account there is a deficit of 0·49d. per vehicle mile without any contribution to the central charges.

217. Subject to the reservations made in paragraph 215, the corresponding figures for the motor-bus services in Birmingham, Glasgow, Liverpool and Manchester in 1953-54 are as follows :—

<i>Per car mile (pence)</i>		<i>Birmingham</i>	<i>Glasgow</i>	<i>Liverpool</i>	<i>Manchester</i>
Traffic receipts ... ..	...	32·291	29·756	31·68	30·251
Working Expenses ... ..	...	28·362	24·239	26·30	26·369
Depreciation and debt redemption...	...	3·512	3·469	2·61	3·037
Total Expenses ... ..	...	31·874	27·708	28·91	29·406
Surplus ... ..	...	0·417	2·048	2·77	0·845

These figures are shown in greater detail in Appendix V. It should be noted that in Glasgow and Liverpool the figures are affected by the existence of tramway services.

218. It will be seen that the traffic receipts per vehicle mile are lower in London than in any of the other four undertakings even though the average fares in London are rather higher than in these other cities. As explained in paragraph 91, if allowance is made for the differences in receipts due to differences in the fares charged the remaining differences in the receipts per vehicle mile in the various undertakings can be due only to differences in the loading of the vehicles. Working expenses in London (excluding depreciation, etc.) are a little lower per vehicle mile than in Birmingham but a little higher than in Liverpool or Manchester. The Glasgow figures are less comparable because much of the traffic in the central area of Glasgow is carried by the trams. As explained in paragraph 44 there are several factors which put up the relative costs in London including higher wage rates and slower average speeds due to traffic congestion.

Wages of Bus Crews

219. From the figures in Appendix V it is clear that by far the most important single item of costs is the remuneration of the bus crews (the drivers and conductors) ; this for London Transport's central buses accounted in 1953 for 12·32d. per vehicle mile (including the cost of clothing and national insurance) of the total working expenses of 27·62d. Basic wages in London are higher than in the municipal transport undertakings in the provinces, the maximum weekly rates for drivers and conductors in 1953 having been £7 11s. 6d. and £7 7s. 6d. respectively in London and £6 13s. 0d. and £6 8s. 0d. respectively under the national agreement for the municipal undertakings. (The rates both in London and in the municipal undertakings were increased by 7 shillings a week at the beginning of 1954.)

220. The cost per vehicle mile of the remuneration of the bus crews depends not only upon the basic wages paid but on several other factors. One important factor is the amount of overtime worked ; the average amount of overtime (including work on rest days) appears to be considerably greater in most provincial undertakings (partly on account of staff shortages) than in London with the result that average weekly earnings in some undertakings are higher than in London although the basic wages are lower. For example, in the week ended 23rd February, 1954, the average gross earnings of London Transport's central bus drivers and conductors were £9 1s. 6d. and £9 0s. 8d. respectively. In Glasgow the average earnings in August, 1954, were £8 15s. 0d. and £7 11s. 10d. respectively and in Liverpool £8 8s. 7d. and £8 0s. 11d. ; but the average earnings in Manchester were £10 9s. 8d. and £9 18s. 7d. respectively while in Birmingham (June, 1954) the average earnings were £11 6s. 11d. for drivers, £10 6s. 10d. for conductors and £9 3s. 10d. for conductresses.

221. The cost per vehicle mile of the remuneration of bus crews also depends upon the arrangements made between the undertakings and the trade union concerned in regard to the hours to be worked and other conditions of service. There are several differences (apart from the differences in wages) between the agreement made by the trade union concerned with the London Transport Executive and the same union's national agreement with the municipal undertakings. These differences, which affect the conditions in which London Transport arranges its operating schedules, are set out in Appendix IX. Many of the larger municipal transport undertakings including those we visited have local agreements which are more favourable to the employees in regard to these matters than the national agreement but are less favourable to the employees than the agreement with London Transport.

222. These conditions affect the economics of running buses lightly loaded during the day-time off-peak period and tend to make for inflexibility in drawing up bus time-tables although there may well be other causes for this inflexibility including the centralisation of scheduling at London Transport's headquarters. Whereas in many provincial cities it pays to take a substantial number of buses off the road during the day-time off-peak period because by so doing it is possible to save the cost of the bus crews' wages as well as the other running costs (fuel, tyres and maintenance), in London the savings are in general limited to these other running costs. In London the crews' wages have to be paid in full for any idle period (other than the normal meal break) between the morning and afternoon duties. The net result is that there is less saving in London by cutting down services where the bus loadings are poor. This may account to some extent for the difference in practice between London and most provincial cities in the matter of withdrawing buses from service in the off-peak periods although, as explained in paragraph 69, there may be other factors which justify the running of lightly loaded buses during the off-peak periods.

223. We are aware that the agreements with the trade unions have a long historical background and that there are also important differences between living and working conditions in London and those in the provinces. At the present time when London Transport is faced with serious shortages of staff for the road services there may be serious difficulties (e.g. in the retention of existing staff and the recruitment of additional staff) in any proposals for the alteration of any conditions of employment if these could be interpreted as adversely affecting the interests of the employees. We consider, however, that having regard to the improved efficiency which would result if better loadings could be achieved this matter should be reviewed through the normal negotiating machinery.

"One-man Operated" Buses

224. It has been suggested that the cost of operating buses in London could be reduced by the introduction of "one-man operated" buses, the driver acting also as the conductor. The practice of having one person to combine the duties of driver and conductor is almost universal in the United States but there a fixed fare is charged for any journey regardless of the length of the journey. No tickets are issued and the task of collecting fares is reduced to a minimum. The passenger enters by a door near the driver, who sees that the appropriate coin is put into a slot machine and gives change where necessary. The driver does not have to deal with fares while he is actually driving his vehicle, during which time the bus doors are shut so that no passengers can board or alight from the bus.

225. London Transport have some one-man operated buses in operation on certain country services and experiments are being tried with a view to a wider

use of such buses but there can be no doubt whatever that so long as there is a system of fares differentiated according to the length of the journey the introduction of one-man operated buses for the central services in London would be wholly impracticable. During the peak periods it is essential that passengers should board the bus as quickly as possible and that collection of fares should proceed while the bus is in motion. Even where there is a conductor, as in the case of the "standee" trolley-bus which we observed in operation in a provincial city, collection of fares as passengers enter greatly slows up the loading of the vehicle; in the peak periods in London it would cause serious delay and would so reduce the efficiency of operation as to produce chaotic conditions at busy loading points. We have already expressed the view in paragraphs 110 to 112 that the introduction of a system of charges based on a flat fare per journey would be inappropriate in London, having regard to the differences in the length of journeys, the conditions of travel and the pattern of travelling. While reductions in the costs of operation must always be a major consideration we could not recommend a change of this kind in the system of charges in order to make it possible to introduce one-man operated buses in central London.

Other Suggestions Relating to Remuneration of Bus Crews

226. A suggestion has been made to us that London Transport's services could be run more efficiently and more economically if, to deal with the heavy traffic during rush hours, part-time drivers and conductors were engaged. Much of the traffic on buses and trolley-buses is concentrated in two short busy periods of the day and there is an interval when the traffic is relatively light. It has been suggested, therefore, that this type of work is particularly well suited to part-time employment, particularly for conductors.

227. One important objection to the employment of part-time bus crews is that road passenger transport, particularly in the London area, requires from the crews a standard of reliability and punctuality which is not always found among part-time employees. The experience of other transport undertakings which have attempted to use part-time employees and have abandoned the attempt leads us to the conclusion that London Transport's policy of relying upon full-time employees only is sound.

228. A similar suggestion has been made to get over the problem of collecting fares during the rush periods. It has been suggested that for the rush periods there should be employed additional conductors who would board buses at particularly busy points and would assist the regular conductor in the collection of fares for a short period. We have referred in paragraph 176 to an experiment on these lines which has been tried in another city but in this case the additional conductors are not part-time employees but full-time reliable conductors who are near the retirement age and for whom this work would be lighter. In so far as it is possible to measure the financial results of the experiment it appears that the extra fares collected do not pay for the extra wages of the additional conductors employed. Even though the immediate effect upon the financial results may appear to be unfavourable the employment of additional conductors in this way may have some merit if it results in virtually 100 per cent. collection of fares at points where, at present, a substantial proportion of fares remain uncollected and if it speeds up the movement of the buses. We suggest therefore that when adequate staff is available London Transport should consider the introduction of a similar experiment with additional conductors on duty on specially difficult stretches of central bus routes. In the introduction of any such experiment care would be necessary to avoid reducing the regular conductor's sense of personal responsibility for his bus.

Other Operating Costs

229. The next item of importance among operating costs is fuel oil. Diesel oil is now used exclusively in London's buses and coaches, and on the motor-bus services of other large cities. It will be seen that the cost per vehicle mile in London is actually lower than in any of the other cities shown in Appendix V. Having regard to the arduous traffic conditions in London and to the employment of a fluid flywheel which, whilst it eases operation, tends to put up fuel consumption these figures of cost for London must be regarded as comparing favourably with those in other cities. Despite the increased traffic congestion and the introduction of large numbers of buses and coaches with more powerful engines the consumption of diesel oil by the central double-deck buses has increased only from 9.58 miles per gallon in 1948 to 9.42 miles per gallon in 1953.* Some credit for this must go to the careful study made by London Transport of the effect on fuel consumption of driving methods, to the high standards maintained by London Transport's drivers and to the use of low viscosity lubricants.

230. Of the total cost of fuel oil for London Transport's buses and coaches in 1953 (£6,513,366) fuel duty accounted for about £4.5 millions, representing about 9 per cent. of the total working expenses of the buses and coaches. Whilst this factor is substantially the same for every road passenger undertaking it is a factor which must be taken into account when comparing the economics of travel by road and by rail and the operating results of London's road and rail services.

231. The incidence of the fuel duty has been commented upon on several occasions in the Annual Reports of the British Transport Commission and there have been proposals from a number of bodies that this duty, which adds materially to the cost of both passenger and goods transport, should be reduced or abolished or should be the subject of special exemptions.

232. This subject is much more a matter of fiscal policy than of the efficiency and economy with which an undertaking is carried on. The duty is today 2s. 6d. a gallon for diesel oil as against 9d. a gallon immediately before the war (although the fall in the value of money must be taken into account). On the other hand imported oil would be making little or no contribution to general taxation if it bore no customs or excise duty. Other commodities and services bear heavy taxes to pay for Government expenditure, including welfare expenditure, and it can be argued that there is no sound reason for exempting fuel oil.

233. Whether some kind of exemption or relief from duty should be given only in respect of the fuel consumption of oil buses used for public passenger transport is another question. The argument in favour of such exemption would be based upon a policy of encouraging the use of public service vehicles and discouraging private cars in congested areas such as the centre of London. An objection to any such special exemption, however, is that it might make road travel appear more profitable than travel by rail and might encourage road services, whether in London or elsewhere, where rail services are more appropriate. Moreover, it may be unsound to give a special exemption from tax when the exemption cannot be related precisely to the service which it is designed to encourage. If it is desired to encourage travel, either by buses or by rail, by providing services at less than their true cost a subsidy, whether in the form of the provision of capital or otherwise, may be sounder than exemption from a tax which happens to exist and which may be increased, reduced or abolished at some time in the future.

* The 1948 figure covers a small number of single-deck buses also but the 1953 figure relates to double-deck buses only.

234. We have noted the burden imposed by the fuel duty on the finances of the London Transport Executive as well as those of other transport undertakings but we have been unable to arrive at a positive recommendation on this subject. Some members of the Committee, whilst recognising the importance of the matter if the use of public transport in London is to be encouraged, take the view that it is a matter for the Chancellor of the Exchequer and for Parliament and that any recommendation by us would be inappropriate. Other members of the Committee feel that public transport should be exempt from the duty on diesel oil but that in view of the administrative problems that might be involved in such a partial exemption it might be better for diesel oil to be completely exempt from duty. We are unanimous, however, in recommending that the matter should be carefully re-examined by the Government.

235. In expenditure on tyres and lubrication London Transport again compares favourably with other undertakings. These satisfactory results can be attributed to some extent to the efficiency of the buses specially designed for use in London and to the standards of maintenance and of driving.

Maintenance Costs

236. The next important item of cost is the maintenance of the buses and here the figures for London Transport's central buses are higher than those for any of the other large cities referred to in Appendix V. The cost per vehicle mile in London (including departmental administration and equalisation of maintenance expenditure) was 4·36d. in 1953, compared with 3·564d. in Birmingham, 3·503d. in Glasgow, 3·88d. in Liverpool and 3·082d. in Manchester.

237. The London Transport Executive are aware that the cost of maintenance per vehicle mile appears to be high but they argue that a very high standard of maintenance is essential on account of the arduous nature of the service required in London, especially for the central buses, and that the high expenditure is economically justified. The Executive have also informed us that maintenance expenditure per vehicle, at common price levels, was about 7 per cent. lower in 1953 than in 1938-39.

238. Whilst we agree that the very high standards of maintenance can be justified if they result in a considerable reduction in the number of breakdowns or in reductions in other costs we cannot find in the figures any support for the London Transport Executive's contention that the costs of maintenance in London, which are higher than the costs in other cities, can be justified on the financial results achieved. It is true that the record of breakdowns in London does not compare unfavourably with the record of other large cities but the differences are not remarkable. During the four years from 1950 to 1953 the standard R.T. buses employed on London Transport's central services have operated about 40,000 service miles for every breakdown involving a stoppage of five minutes or more caused by a mechanical defect (i.e., one such breakdown per bus per annum) ; the corresponding figure in Glasgow is also about 40,000 miles per breakdown and in Liverpool about 30,000 miles but in making comparisons between these figures it must be recognised that there are in practice differences of definition which, to some extent, make comparison difficult and perhaps invalid. Moreover, it is probably true that the nature of the average service performed by the central buses in London is more arduous than anywhere else in the United Kingdom ; on the other hand road surfaces in London are generally better than elsewhere.

239. The expenditure by London Transport on maintenance of 4·36d. per vehicle mile mentioned in paragraph 236 includes, in addition to departmental administration and equalisation of maintenance expenditure, the expenditure

incurred in the overhaul of buses at the main works at Aldenham and Chiswick and also the repair work and periodical inspection (as distinct from cleaning and other servicing) at the garages.

240. The works at Aldenham are devoted to the repair of the bodies and chassis of all the buses and coaches whilst the works at Chiswick (which were previously used for overhaul of the complete vehicles) are to be confined in future to the repair of the engines and other mechanical units such as pumps, gear-boxes and electric batteries. The use for this purpose of a building at Aldenham already owned by London Transport was not approved by Parliament until July, 1950, and the very complicated process of adapting the existing building at Aldenham and transferring the maintenance of the bodies and chassis from Chiswick has not yet been completed. As a result the picture both at Chiswick and at Aldenham is at present complicated and untidy. There have been other factors, such as the scrapping of trams and the decision ultimately to scrap the trolley-buses, which have added to the problems of getting these works on to a logical and efficient basis.

241. The reasons for the choice of Aldenham and for incurring the heavy capital expenditure there are dealt with in paragraphs 291 to 294. We are satisfied that when the adjustments are completed Aldenham can become a very efficient and relatively low-cost maintenance works well suited to the large fleet of London buses, which will continue to grow as the trolley-buses are withdrawn from service.

242. The works at Aldenham are designed to convert maintenance work to what is virtually a manufacturing operation in which the materials and work flow logically from one section to another. This is only possible because the number of vehicles to be handled is large while the number of types of vehicles to be handled is small. In this respect London Transport have a substantial advantage over any of the provincial undertakings and, as a consequence, the maintenance costs ought to be lower in London. We are satisfied that Aldenham has been laid out with imagination and is being designed for operation on an efficient and economical basis. In some respects its methods are as advanced as in any British or American industry. Nevertheless, there is one unsatisfactory feature and that is that productivity per head remains low because of the excessive numbers employed in the works. This criticism applies also to the works at Chiswick and to the garages. The proportion of maintenance and cleaning staff employed in the works and garages in relation to the number of buses in London is about 1.5 to 1 compared with about 1 to 1 in other large cities.

243. We are informed by London Transport that when the works at Aldenham have been completed and when the reorganisation at Chiswick is also complete it will be possible to reduce the numbers employed and to do this by natural wastage instead of dismissals. We feel, however, that with the modern layout of Aldenham and the specialisation in engine repairs which will be the feature of the revised layout of Chiswick the savings in labour costs at these works could be very substantial and that London Transport have an opportunity of increasing productivity in the maintenance of motor vehicles which is open to no other passenger transport undertaking in the country. We are aware of the difficulties which face London Transport in matters of this kind but we understand that the whole subject of reducing redundancy and improving the productivity in these works is being studied afresh and is the subject of detailed joint consultation with the trade unions concerned. Until such improvements are made the level of maintenance costs of London buses must be regarded as unsatisfactory.

244. While the severe traffic conditions in London must both add to the actual costs of maintenance and dictate a higher standard of maintenance than would

be appropriate in other places it appears to us from an inspection of reports and an examination of the work that the Certifying Officers and Vehicle Examiners of the Ministry of Transport and Civil Aviation are meticulous, at any rate in London, on unimportant points of detail to an extent that is unreasonable. Owing to historical differences neither railway rolling stock nor trolley-buses have to be inspected periodically by the Ministry's staff; London Transport and other undertakings operating railways or trolley-buses are left with the responsibility for maintaining reasonable standards of safety. If this system has worked without trouble for many years for railways and trolley-buses it appears to us that the detailed work of the Ministry's staff designed to ensure that responsible undertakings such as London Transport are maintaining reasonable standards of safety in relation to buses and coaches is equally unnecessary.* We would not suggest that London Transport, as a nationalised undertaking, should for that reason be exempt from any procedure which is appropriate for other transport undertakings but we recommend that the Ministry of Transport and Civil Aviation should re-examine the duties of the Certifying Officers and Vehicle Examiners to see whether, in respect of London Transport and other very responsible undertakings, there should not be some relaxation of the frequent meticulous inspections which are made at present under the provisions of the Road Traffic Act, 1930, and add materially to London Transport's costs of maintenance without adding to the effectiveness of the undertaking. It might well be that the requirements of the Act could be waived altogether so far as these undertakings are concerned but at least we consider that the Certifying Officers and Vehicle Examiners should be permitted to exercise their discretion to a greater extent than at present. In determining the extent to which they can properly substitute tests for exhaustive and detailed inspections, firms of auditors use their discretion in this way in deciding the extent to which they need make exhaustive checks of the books and accounts of public companies on whose accounts they have to report; in exercising this discretion they have regard to the system of internal control in force in the companies and to the results of the tests which they apply in order to judge how far those systems are effective. In this way unnecessary audit work and expense are cut out without real loss of efficiency; we consider that even if inspections by the Ministry's officials cannot be wholly dispensed with the adoption of similar principles by the Ministry of Transport and Civil Aviation should be considered.

Garage Costs

245. The cost of vehicle cleaning and other garage expenses in London was 1.41d. per vehicle mile in 1953 for the central buses. Here again it will be seen from the figures in Appendix V that the costs are higher in London than elsewhere, although having regard to the size of the undertaking there would be a reasonable expectation of achieving a lower cost per mile than in smaller undertakings. The cleanliness and general appearance of the London buses compare very favourably with those of any other undertaking but this does not justify so large a difference in cost.

246. The work done on the buses in the garages consists of refuelling, washing the exterior of the bus, cleaning the interior and undertaking certain periodical checks and minor repairs found necessary during the intervals between the visits of the bus to Aldenham for major overhauls. The work also includes the removal of engines to be sent to Chiswick for overhaul and replacement by reconditioned engines received from Chiswick.

247. The system under which the bodies and chassis of buses and coaches undergo regular overhaul at Aldenham every $3\frac{1}{2}$ years (roughly every 160,000

* This matter was referred to in the Report of the Thesiger Committee (Chapter XII).

miles) while the engines are taken to Chiswick for overhaul only when they are found to require attention appears to us to be sound and economical. An engine is not overhauled merely because the bus as a whole requires overhaul. As the engines of the R.T. buses which form the greater part of the central bus fleet are interchangeable there is a steady movement of engines between the garages and the works at Chiswick which is independent of the movement of buses to Aldenham for major overhaul of the bodies and chassis. The system does, however, involve the provision of a larger stock of spare engines than would be needed if engine, chassis and body were overhauled at the same time in the same place. It also involves the provision of a larger number of auxiliary vehicles to carry the engines between the works and the garages.

248. Exterior cleaning is done in some garages by a simple washing machine but the front and corners have to be done by hand so that the saving in manpower is not very great. In other garages, where washing is done by hand, the methods employed appear to be crude and rather wasteful of manpower.

249. In London Transport garages, garage staff is used to move buses to the refuelling and cleaning points but in many cities in the Provinces this driving is done by the bus drivers themselves while the conductors are paying in their cash. We have been informed that in London the buses return to many of the garages in such rapid succession that queues of buses form in front of the refuelling point and that the bus drivers would therefore have to wait some time before their buses could pass this point. It may be that the layout of some of London Transport's garages does not lend itself to the same speedy drive-up to the refuelling and cleaning points as is possible in provincial cities but it should not be impossible to overcome this difficulty. Drivers are under their agreement entitled to time for signing off and making their report on their vehicle and we suggest that in the layout of garages, particularly in any new or reconstructed garage, it might be possible to make provision for this work to be done in the bus driver's time for signing off and so avoid the need for extra staff who are not, in fact, employed for this work in other undertakings.

250. Minor repairs and the checking of the engine and other units of the mechanism of the buses are done by semi-skilled workers who are described as "unit adjusters." The starting point of the work is the driver's daily report on the condition of the bus as he has found it while driving, together with the foreman's regular statements of work needed.

251. Under the agreement with the Transport and General Workers' Union the London Transport Executive are required to maintain, in the central and country bus garages, not fewer than 0.92 men per licensed vehicle for maintenance, cleaning and other duties; in the trolley-bus depots 1.03 men must be allocated for each trolley-bus. So far as we are aware no other transport undertaking in the country has a condition of this kind, which may prevent or discourage the undertaking from improving the productivity of its garage maintenance staff. Agreements of this kind were made between the Union and the London Transport Executive's predecessors before the war and there may have been good reasons for the inclusion of a similar condition when the agreement with the London Transport Executive was negotiated in 1947 but we consider that at the present time, when trade unions as well as employers are committed to a policy of improving productivity, a condition which might militate against any attempt to improve productivity per head should be jointly reconsidered by the Executive and the Union.

252. The introduction of the standard R.T. bus specially designed to cope with the conditions of central London traffic (to which we refer in greater detail in paragraphs 287 and 288) has resulted in a marked improvement in bus

performance on the road. The drivers' reports of mechanical defects are evidence of the high standard of these buses and having regard to this high standard there should be scope for further reductions in maintenance costs. Indeed, London Transport informed us that one of the reasons for introducing the R.T. bus at an initial cost substantially higher than the cost of types such as are bought by other transport undertakings was that the R.T. bus was expected to show savings in maintenance costs.

253. We have been informed by the London Transport Executive that they are dealing with the question of redundant maintenance staff and are reducing staff by not making good natural wastage due to retirements or resignations from other causes. Whether the reduction of surplus staff could be expedited by other means, including if necessary the payment of compensation for discharge, is a matter which we consider should be discussed by London Transport with the trade unions concerned through the appropriate negotiating machinery.

254. From an examination of the work done in the garages on cleaning and maintenance and in the overhaul works at Chiswick and Aldenham it is apparent that there is need for more systematic and scientific application of modern methods of work study. There is, in our view, need for an entirely new approach to the whole problem of this question of maintenance costs and we consider that the London Transport Executive and the trade unions concerned should undertake a thorough joint study of this problem in all its aspects with the specific object of making substantial savings in maintenance costs. In paragraph 294 we refer to the possibility that the London Transport Executive might have their own work study experts who would advise all departments of the undertaking on these problems.

Other Costs

255. The wages of the traffic staff (other than drivers and conductors) together with other items of traffic administration cost 1.99d. per vehicle mile in respect of London Transport's central buses in 1953. It is very doubtful whether in present conditions there can be any substantial saving in these items. Indeed, if greater flexibility is introduced by such measures as turning buses more frequently where there has been bunching due to traffic congestion the cost under this heading is likely to rise rather than fall since more supervisory staff may be needed. The corresponding figures are lower in Glasgow and Manchester, higher in Birmingham and about the same in Liverpool.

256. The staff of the Operating Manager (Central Road Services) and the Operating Manager (Country Buses and Coaches) includes the staff responsible for drawing up the bus schedules. This work is done for all routes at the head offices of the two Operating Managers and we were informed that the various services of the London buses are so complicated and inter-related that it would be impracticable to decentralise the work of drawing up the schedules to the Divisional or District Superintendents or to the garages. We are not wholly convinced that this centralisation of all the scheduling work, including that for the country services, makes for the highest degree of efficiency. This matter is dealt with in paragraph 349.

257. General administration, superannuation, pensions, benevolent funds, publicity, rents and other items account for 1.33d. per vehicle mile for London's central buses, the actual cost in 1953 (for all buses and coaches) being £1,887,696, of which the most important items are :—

General administration	£841,762
Superannuation, pensions, benevolent funds, etc.	£407,266

258. The cost of general administration includes a proportion of the central expenditure which an undertaking such as London Transport is bound to incur, e.g., the salaries of the members of the Executive and the salaries and office expenses of certain common services which are performed centrally, such as the department of the Chief Financial Officer, including the Pay Rolls staff, and the staff concerned with publicity and public relations. In our visit to the head offices of the London Transport Executive we examined in some detail the work of several departments. In general the methods of administration appear to us to be efficient and economical. There is an Organisation and Methods Section, under the Staff Administration Officer, which is efficient and has achieved some valuable results. Expressed as costs per vehicle mile this expenditure on central administration in London compares very favourably with the costs in municipal undertakings generally. This is due to some extent to the size of London Transport's undertaking and the large number of vehicle miles over which the central expenditure is spread.

259. The cost of superannuation, pension funds, etc., amounting to .29d. per vehicle mile for London Transport's central buses, is lower than in most municipal transport undertakings. It should be noted, however, that the British Transport Commission's pension scheme for weekly-paid staff did not come into operation until October, 1954, and that the cost to London Transport under this heading will be higher in future years than it was in 1953.

Depreciation and Renewal

260. The charges for depreciation of London Transport's central buses accounted for 1.65d. per vehicle mile in 1953. This figure cannot easily be compared with the figures shown for provincial undertakings because the systems employed differ widely. We have to point out, however, that depreciation on London Transport's post-war buses is based upon a life of 14 years (as compared with 10 or 12 years generally in provincial undertakings) and is calculated so as to write off the cost by equal annual instalments over this period. Depreciation on the buses at current replacement costs would be a somewhat higher figure.

CHAPTER XIII

Costs of the Rail Services

Introductory

261. There is no undertaking in this country which is strictly comparable with London Transport's railway system. In Glasgow the Underground Railway is so much smaller (1½ million car miles against London's 209 million car miles in 1953) that comparison is worthless. Another difference is that the Glasgow undertaking is old and a great part of the capital expenditure both on the permanent way and structures and on the rolling stock has already been completely written off so that the current charge for depreciation is very low. New York and Paris have underground railway systems but the physical conditions, the methods of operation and the systems of charging fares are so different that comparison is of little value for the purpose of any examination of the efficiency and economy with which the London Transport railways are operated.

Operating Costs

262. The analysis of the costs of operation in 1953 given in Appendix V shows that, whereas for the road services the wages of the bus crews are the

largest item of costs, for the railways the largest item is the consumption of electric current, amounting to 4.55d. per car mile, whereas the wages of the train crews were 2.16d. The corresponding figure for electric current on the Underground in Glasgow (5.096d. per car mile) is not strictly comparable since the figures of costs in Glasgow are calculated in relation to each train (comprising one motor car and one trailer) and not in relation to each separate car.

263. We have explained in paragraph 189 that, since the electric current consumed on any journey is almost proportional to the weight of the train it follows that a substantial saving of current can be effected by running short trains of three or four cars instead of long trains (seven or eight cars) during the off-peak periods. This is being done to an increasing extent in London and saves current.

264. Car cleaning and other depot expenses account for .63d. per car mile. This includes not only the cleaning of the exterior and interior of the car but the testing at set intervals of the whole of the electrical and mechanical equipment and does not appear to be an excessive cost. The arrangements for handling the trains in the depots and for their cleaning and checking appear to be efficient and economical. Some reduction in certain of the costs, e.g. in car cleaning, may be possible if some more suitable equipment can be devised, but any such saving is likely to be a negligible proportion of the total cost.

Maintenance Costs

265. The maintenance of the rolling stock, costing 2.93d. per car mile in 1953, is an important item and costs more than the wages of the train crews (2.16d. per car mile). This work is done at London Transport's railway overhaul works at Acton.

266. In considering the standard of maintenance appropriate for underground railway rolling stock it has to be remembered that while a mechanical defect on a bus will hold up only one vehicle a mechanical breakdown affecting an underground train will not only hold up the whole of that train, which normally will be carrying many more passengers than a bus, but cannot fail to hold up also many other trains. If the delay lasts more than a few minutes conditions both at the stations and in the tunnels can become serious. The London Transport Executive are obviously right, therefore, in emphasising that the standard of maintenance must be of the highest order to ensure that mechanical breakdowns are reduced to the minimum. The safety devices on the trains extend to such matters as the proper closing of doors and any defect in this equipment, which in the peak period is subjected to a very heavy strain, will cause a hold-up.

267. The record of breakdowns, whether caused by mechanical failures of the trains such as door failures or by signal failures, has improved steadily during recent years. For example, door failures per 100,000 car miles were reduced from 0.51 in 1939 to 0.34 in 1953 and signal failures were reduced from 1.460 per 100,000 car miles in 1938 to 0.491 in 1953. The record differs for the different lines of London Transport's railways but we are satisfied that the average standard is high and that further progress can be expected as new equipment is introduced.

268. The overhaul works at Acton are well laid out and the work proceeds in a logical and well-ordered manner. A careful check is kept upon the costs at each stage of maintenance and the distance run by each car between major overhauls has been increased recently from 200,000 miles (every 4 years) to 250,000 miles (every 5 years).

269. In general, the standards of efficiency at Acton appear to be well up to some of the best standards in British industry as a whole. It is unlikely that any significant economies can be expected prior to the long-term replacement of existing rolling stock by stock made of light alloys and fitted with regenerative braking. We understand that when this replacement occurs maintenance and running costs should be reduced substantially.

270. We believe, however, that there is room at Acton (as in the bus overhaul works at Chiswick and Aldenham and in the garages) for improved productivity and reductions in the numbers of staff employed. On 11th August, 1954, there were in the Production Engineer's Department at Acton 692 craftsmen against an authorised staff of 671 and 687 semi-skilled staff against an authorised figure of 643. To some extent this was offset by having only 66 unskilled men against an authorisation of 95. These figures indicate a substantial element of redundancy even on the present organisation and methods of work. If the whole of the work were to be more scientifically reviewed in the way suggested for the bus overhaul works and garages in paragraph 254 it is probable that the numbers required would be substantially less than the authorised establishment.

271. The maintenance and renewal of way and structures accounts for 4.35d. per car mile and, after electric current, is the highest individual item of the cost of carrying passengers on the London Transport railways. London Transport maintain a careful and reasonable balance between the work performed by their own staff and the work put out to contractors. We are satisfied that the methods employed in allotting the work are conducive to economy and efficiency. For certain of the more specialised work which has to be done on or close to the railway track, either when services are operating or late at night, the employment of London Transport's own staff, instead of contractors, has been adopted and is clearly the right policy. There have been criticisms of the costs of construction and maintenance at some of the stations and elsewhere but in general the methods of design and construction appear to keep costs down reasonably and we find no extravagance in this matter. If anything, conditions at some stations are austere rather than extravagant.

Other Costs

272. The wages and clothing of the traffic staff (excluding motormen and guards) account for 3.42d. per car mile. The staff involved include the station platform attendants, ticket collectors and booking office staffs.

273. It has been represented to us that the staff at certain stations is excessive and that in particular ticket collectors employed at some of the inward barriers appear to do their work in a perfunctory manner which suggests that it is unnecessary. It has been suggested that economies could be effected by doing away with all the inward checking of tickets and we have discussed this with the London Transport Executive.

274. We have mentioned in paragraph 171 that the loss of revenue through non-payment or under-payment of fares on the railways is estimated to be small by comparison with the corresponding loss on the road services but the London Transport Executive have made it clear that in their judgment the abandonment of all checking of inward tickets would be likely to lead to an increase in the fraudulent non-payment or under-payment of fares on the railways. London Transport also point out that a proportion of the inward barrier staff is provided out of spare margins of time of the staff required for peak-hour ticket collection at the outward barriers and that they are also needed for dealing with emergencies and to control heavy surges of traffic at the head of escalators and elsewhere. A reduction in the numbers of such staff might lead, in certain circumstances, to chaotic conditions or to avoidable accidents during such periods.

275. We agree with London Transport that the abolition of ticket inspection on entry into the stations would be unwise for the reasons stated but we feel nevertheless that some steps should be taken to see that where these services are necessary they are performed in a manner which not only is efficient but also has some semblance of efficiency in the eyes of the millions of passengers who use London Transport's railways daily.

276. As explained in paragraph 198, the operation of signals, lifts and escalators which accounts for 0.55d. per car mile is a very vital part of the operation of London Transport's railways because of the intensity of the service and the need to maintain the maximum frequency of trains during the peak period without reducing standards of safety. The introduction of an improved system of signalling on some sections of certain lines, to which we have referred in paragraph 198, enables a train to approach the train in front with safety but more closely than under the old system of signalling. The cost of this improved method of signalling is substantial but an extension to other sections of the London Transport railways would appear to be justified since the system, by allowing trains to be run at exceptionally close intervals, enables the heavy peak hour traffic to be dealt with more efficiently.

277. The costs attributable to the London Transport railways in 1953 in respect of rates, general administration, superannuation, pensions, benevolent funds and other items amounted to 1.42d. per car mile and a total of £1,153,775 of which the main items are :—

Rates	£428,857
General administration	£377,204
Superannuation, pensions, benevolent funds, etc.	£205,451

Our comments in paragraphs 257 and 258 on the amount of this expenditure, on the measures taken to keep it down and on the relatively small cost per vehicle mile apply to the central expenditure applicable to the railways as they do to that applicable to the road services.

278. Depreciation of railway rolling stock in 1953 amounted to £933,188 or 1.15d. per car mile. This depreciation is based upon the original cost of the rolling stock. If the provision were based upon the cost of replacement at present-day prices the provision needed would be rather more than twice the figures actually charged in the accounts. In due course London Transport will have to replace this rolling stock and so long as the undertaking's revenues are insufficient to enable sums to be set aside to provide for the full cost of replacement it cannot be said that the finances are on a satisfactory basis or that, taking one year with another, the undertaking is truly paying its way. In this respect the position of the London Transport railways is worse than that of London Transport's road services because a large proportion of the road vehicle fleet has been replaced fairly recently at a relatively high cost so that the present depreciation charge in respect of these vehicles is not very different from what the charge would be if it were based upon the current cost of replacement.

279. Details of the working costs of the London Transport railways in 1953, with the corresponding figures for Glasgow in 1953/54, are given in Appendix V. Although working costs (excluding depreciation, interest charges, etc.) in London were 21.04d. per car mile, against 42.342d. per mile in Glasgow, the figures are not truly comparable because the number of car miles run in London is more than one hundred times the number of miles run in Glasgow and because the Glasgow figures are calculated in relation to a train consisting of one motor car and one trailer.

Research, Development and Capital Expenditure

Research and Development

280. The expenditure on research by London Transport has been given at approximately £50,000 per annum, to which has to be added some expenditure on development incurred in the departments of the two Chief Mechanical Engineers (Railways and Road Services), the Chief Electrical Engineer and the Chief Civil Engineer. This expenditure appears to be small in relation to revenue receipts of about £70,000,000 per annum but there are sound reasons for this.

281. In the first place the provision of transport services of a regular character for a number of passengers which is unlikely to fluctuate much does not lend itself to spectacular developments of the kind which are sometimes possible in manufacturing industry. Changes must be introduced carefully and gradually if development and improvement are not to cause chaos.

282. Another reason for the small expenditure on research is that it is possible for London Transport to get the manufacturers of equipment for both the road services and the rail services (especially manufacturers of rolling stock) to undertake much of the research required, including research on lines suggested by London Transport in the light of operating experience.

283. The London Transport Executive maintain membership of a number of research organisations including the following :—

- British Electrical and Allied Industries Research Association
- British Iron and Steel Research Association.
- British Non-Ferrous Metals Research Association
- Motor Industry Research Association.
- Production Engineering Research Association.

In this way and by liaison with many other bodies the Executive are enabled to keep abreast of modern developments in transport and in transport equipment at a relatively low cost.

284. We are satisfied that both for the road services and the rail services a progressive research policy is being followed and that the results achieved in improved equipment are well worth the expenditure incurred. Many improvements and aids to efficient operation have been developed either within London Transport's own organisation or by collaboration between London Transport and the manufacturers : a few examples are the introduction of railway rolling stock with the engines below the floor (to which further reference is made in paragraph 297) ; rolling stock of light alloy construction ; new signalling methods on the railways ; the special features of London Transport's R.T. bus and the more recent R.M. bus ; the modern spray-painting unit at the Aldenham overhaul works ; and many experiments with lubricating oils which have reduced fuel consumption and maintenance costs. London Transport's operational research appears to be carefully and intelligently planned.

Capital Expenditure

285. We are satisfied that, in the handling of proposals involving substantial capital expenditure, the methods used for investigating the facts and figures and for making estimates of costs and returns are skilful and thorough and that on each of the projects which we examined sound judgment has been shown. Details of some of the more important projects approved or under consideration

are given in the following paragraphs. Abortive expenditure on schemes of capital construction has been moderate having regard to the total amount of capital expenditure which has been and is being incurred by London Transport. This is an indication of careful planning. Some expenditure has been rendered abortive through circumstances beyond the control of the London Transport Executive : for example, the designation of an area as part of the Green Belt has involved a revision of the estimates of future population in the area and the abandonment of transport arrangements which would have been excessive for the new estimates.

286. The principal items of capital expenditure incurred by London Transport in recent years have been

- (a) the replacement of older types of buses by the standard R.T. and R.F. types ;
- (b) the scrapping of the tramway system and conversion to motor-bus and trolley-bus operation (with the corresponding capital expenditure on garages and depots) ;
- (c) the development of the overhaul works at Aldenham for the maintenance of buses and coaches together with reorganisation of the works at Chiswick.

Standard Buses and Coaches

287. Most of the expenditure on the replacement of older buses would have been necessary in any event after the war because the vehicles employed had reached, or were reaching, the end of their useful lives. We have examined the reasons given by London Transport for the virtually complete standardisation of the fleet of buses and coaches (the R.T. double-deck bus and the R.F. type for single-deck buses and coaches) and for the higher cost of these vehicles compared with buses of other types purchased by provincial undertakings and we are satisfied that, notwithstanding the extra cost of the special London types compared with other types, the traffic conditions of London justify this decision. The R.T. double-deck bus is specially designed for the arduous conditions of London traffic and has substantial advantages in easy gear-changing and smoother acceleration compared with older types in addition to other features designed to increase passenger appeal. A number of buses of the R.T.W. type have also been introduced ; this is a variant of the R.T. type and is 8 feet wide instead of 7 feet 6 inches, the extra width giving the conductor greater freedom to collect fares. Within the last few months London Transport have shown a prototype of a new light-weight bus which has a larger capacity than the R.T. type and incorporates many new features. This new double-deck bus (the R.M. type or " Routemaster "), which is constructed largely of light alloy, will be capable of carrying a larger number of passengers more comfortably and at a lower running cost per passenger than any of its predecessors. It is intended that this type should replace the trolley-buses and, ultimately, the R.T. type.

288. The London Transport Executive have been criticised, in evidence submitted to us, for scrapping a number of pre-war or war-time buses shortly after the war and replacing them by R.T. buses. Many of the vehicles sold were bought by other transport undertakings in this country or overseas and we have been informed that the buses disposed of, after reconditioning and the fitting of new bodies, are still giving useful service. The conditions of operation in London are, however, so different from those elsewhere that a bus which is reasonably efficient for operation in the provinces or overseas may be well below the standard required for operation in central London. One possible ground for minor criticism is that some of these buses might have been employed by

London Transport in the operation of the country services and that some saving by a delay in replacement might thereby have been effected but this is a matter of opinion between technical experts.

Abandonment of Trams

289. The decision to scrap the trams, which have been replaced partly by trolley-buses and partly by motor-buses, was taken and implemented before we were appointed. Nevertheless, we have received representations criticising this decision and advocating a policy of re-introduction of railed electric traction on the roads as an integral part of London's passenger transport system.

290. We have no hesitation in saying that, having considered the evidence, we are satisfied not only that the decision was right but that whatever the merits of railed electric traction in some Continental cities with wide streets such a system is clearly obsolete and impracticable for London. There can be no doubt that the removal of the trams, particularly from South London, has done more than anything else to improve road traffic conditions and that the motor-bus has proved to be a much more suitable means of road passenger transport. London traffic conditions are such that railed electric services must be specially provided by the underground railways, by the suburban lines of British Railways or by the use of other special tracks. It is unrealistic to assume that the narrow, congested streets of London could continue to carry electric trams or other forms of railed electric transport since the result could only be to reduce road traffic in London to a state of still more acute congestion.

Aldenham and Chiswick Overhaul Works

291. With the increasing use of motor-buses the inadequacy of the bus overhaul works at Chiswick was recognised many years ago by the London Passenger Transport Board but the intervention of the war prevented any action from being taken until after the war, when the undertaking became the responsibility of the London Transport Executive.

292. Several alternatives were open to London Transport but it was finally decided that the overhaul of the bodies and chassis of the buses and coaches could be done more efficiently and more economically if the work were concentrated at one site. A site at Ickenham was selected in July, 1948, but Parliamentary permission to use the site for this purpose was refused. London Transport then turned to Aldenham which had been partially developed by the London Passenger Transport Board before the war as a railway depot for a proposed tube extension from Edgware to Elstree. The plan to extend the tube was abandoned after the war because a large part of the area which the proposed extension was intended to serve was subsequently scheduled as part of the Green Belt and the traffic would thus not have warranted the completion of the project. The Aldenham site and depot were therefore available and although the location might not be ideal, nevertheless, with the development of housing estates in the neighbourhood, it would be possible for the staff who would be employed at the works to live nearby. It was decided that Aldenham contained more advantages and fewer disadvantages than any other available site.

293. The cost of the original building at Aldenham was £220,000 and the total cost of the overhaul works when completed is expected to be about £3,500,000. Although this is a large sum we are satisfied that, having regard to the number of vehicles that can be put through the works and the savings which can ultimately be made, the decision taken was justified. We have described in paragraphs 240 to 243 the system introduced by London Transport which will enable the bodies and chassis of all buses and coaches to be overhauled at

Aldenham and all the engines and other mechanical units at Chiswick. Costs at Aldenham and at Chiswick will continue to fall as more rolling stock is standardised, as the works are more completely occupied and as redundant staff is reduced. A considerable reorganisation is in progress and the new layout promises to be efficient and to lend itself to the maximum use of labour-saving devices. We consider that in making their choice among the possible courses London Transport have acted after full consideration of all the facts and have made a wise decision.

294. In replanning the layout of the overhaul works at Chiswick and Aldenham London Transport obtained in 1953 the services of a firm of industrial consultants. This has already led to economies and is expected to achieve more economies and we suggest that similar arrangements might be made in respect of the work and layout of the bus garages. If our recommendation in paragraph 254 is adopted London Transport might have in due course their own work study experts, whose task would be to examine all aspects of the work in the overhaul works and garages more scientifically than is done at present, with the object of cutting costs. In the meantime the employment of an outside firm of industrial consultants to advise on the work at Chiswick and Aldenham is a useful start.

Future Capital Expenditure

295. In addition to expenditure on projects already completed or in hand a number of further projects, if approved and carried out, would involve substantial expenditure. These include—

- (a) the replacement of the trolley-bus system by oil buses ;
- (b) the introduction of railway rolling stock of approved design ;
- (c) new underground railways ;
- (d) the improvement of certain underground stations ;
- (e) new or improved garages ;
- (f) bus terminals in central London ;
- (g) inter-change points, especially in central London, between two or more different services.

Replacement of Trolley-buses

296. A number of complicated factors have had to be taken into account in arriving at the decision which has been taken recently to scrap the trolley-bus system, comprising more than 1,700 vehicles, and to operate the whole of the central road services by oil buses. The power consumed by the trolley-buses is substantial and represents about 25 per cent. of the total electric power consumed by London Transport for traction, the balance being consumed by London Transport's electric railways. Some of the power plants belonging to London Transport are old and would require replacement in the near future if the trolley-bus system were to be retained. It was desirable, therefore, to make an early decision with regard to the trolley-buses so that a suitable decision could be reached in respect of the power stations. We have seen the very carefully prepared financial studies which were considered by the London Transport Executive in arriving at their recommendation, which has been endorsed by the British Transport Commission. If ordinary working expenses only are taken into account there is not much difference between the operation of oil buses and trolley-buses but when the capital expenditure on equipment, including sub-stations and road installations, is brought into the calculations and when the advantages of the oil buses from the operating point of view are taken into account (even though this factor is not capable of precise financial measurement)

the scales come down in favour of oil buses. Operationally the oil bus is superior to the trolley-bus because of the greater flexibility in fixing and in modifying routes which is possible with an oil bus. It has been explained in Chapter VIII that, whilst some savings can be looked for in respect of London Transport's operating costs, improved loadings (which might be assisted by more flexible methods of operating) can have a much greater influence upon the finances of the undertaking. If, therefore, the financial results of operating oil buses and trolley-buses were otherwise equal then at a time when heavy capital expenditure and re-equipment would in any event have been necessary it was wise to decide in favour of oil buses. We consider that in their decision in this matter London Transport have taken questions of economy and efficiency fully into account and that their method of handling this difficult problem was up to the highest standards in industry.

Railway Rolling Stock

297. A few years ago London Transport decided to introduce on the Piccadilly and Central lines a substantial number of new railway cars of improved design and fabricated very largely in light alloy. In the improved design, which is already employed in steel cars used on the Bakerloo and Northern lines and to a small extent on the Piccadilly line, the motors are under the floor so that the motorised cars at each end of a group of cars forming a train have the whole of the area above the floor available for passenger accommodation (except the small compartment occupied by the driver). The older stock, in which the motors are carried in the cars, involves a loss of passenger accommodation representing something like 14 per cent. of the accommodation of a complete train. During the peak periods of traffic additional passenger accommodation of this kind is extremely valuable.

298. Some substantial saving of electric current can be effected if the cars can be reduced in weight by employing light alloys instead of steel and as electric power is the largest single item of running cost for the London Transport railways this is an important consideration. With a light alloy train it may also be possible to avoid expenditure on painting the exterior of the cars ; experimental unpainted cars have been in service on the District line for some time. The scheme to build a large number of cars in light alloy for the Piccadilly and Central tube lines was postponed in 1952 on account of the very high cost of the new cars. Moreover, at the time this decision was made, it was felt that a number of technical improvements might still be possible and, in particular, that some of the existing equipment on the cars could be eliminated so as to simplify the rolling stock and to reduce further the maintenance costs. We are satisfied that in arriving at the decision to postpone the heavy capital expenditure on light alloy rolling stock until improved designs were available London Transport acted with due regard to economy and efficiency. It has been announced within the last few months that three prototype light alloy trains of a new design are to be built and to be left unpainted and no doubt there will be a decision at some early date to proceed with this programme. When this is done some appreciable economies in running costs can be expected.

299. We are satisfied that in respect of the development of rolling stock designed to make use of light alloys and to employ improved systems of regenerative braking London Transport are approaching their development problems in a manner which is both imaginative and sound. Because of the operating savings which might be reaped we recommend that London Transport should consider pressing forward with development work of this kind as a matter of some urgency and devoting a larger staff to it so that economies can be effected at the earliest possible time.

New Underground Railways

300. On 16th December, 1953, the Minister announced that he had agreed that a detailed investigation should be made into the costs of construction and the estimated traffic results of one of the proposed new tube railways which is known as Route C. This line, which is shown in the map in Appendix VIII, would extend over its whole length from Walthamstow to a junction with the District line near Fulham. It has been planned as the railway project most likely to relieve street congestion in central London and to provide much-needed direct railway routes. It would have the following important advantages :

- (a) It would provide a tube railway between the West End and the north-eastern sector of outer London, which is badly served by rail.
- (b) It would relieve overcrowding on the Piccadilly line, especially on the section between Green Park and Manor House.
- (c) It would provide direct and much-needed rail connections between Kings Cross, Euston, Oxford Circus, Green Park and Victoria.
- (d) It would relieve some heavily-loaded bus routes and traffic congestion in the centre of London.
- (e) It would facilitate electrification of the Chingford and Enfield lines of British Railways which might otherwise add to the existing over-loading on the Central line at Liverpool Street.

301. It has been stated by London Transport in written evidence to us that while this tube railway would be bound to attract some extra traffic in addition to providing more comfortable services and relieving congestion the increased receipts would be unlikely in themselves to warrant the heavy capital expenditure which would be required.

302. In this matter, however, we agree with views which have been expressed by members of the London Transport Executive in oral evidence. There is no doubt that where very large numbers of passengers need to be moved during peak periods an electric railway, which in central London must perforce be underground, is a more efficient means of transport than any road vehicle, whether it is an oil bus or a trolley-bus. The section of the Piccadilly line from Piccadilly Circus northwards to Manor House and the eastern section of the Central line, together with many bus routes in central London, are already overloaded at the peak hours and there is little doubt that these black spots can only be improved if major capital expenditure both on the surface and underground is undertaken. No decision has yet been reached in regard to the construction of Route C but we are of opinion that, while it is necessary to keep well in mind the immediate financial results of any new capital expenditure, the indirect economic advantages to London Transport and to London's economy as a whole are so important that a project of this kind should not be abandoned or postponed because on the basis of direct revenue and direct expenditure it appears to be unprofitable. It is possible that if Route C were constructed the direct financial results might prove to be more favourable in practice than appears likely at the present time and it is interesting to note that the new subway railway in Toronto, opened in 1954, is already showing a profit although an operating loss was forecast. But the direct results are neither the only nor the decisive factor.

303. It has been explained in paragraph 57 that the need to provide large numbers of buses during the peak hours when traffic congestion is acute puts up very sharply the cost of the road services provided by London Transport. It has also been explained, in paragraph 130, that London Transport's finances would be materially improved if capital expenditure were incurred upon roads and the speed of traffic thus increased. It is also clear that overcrowding due to

the difficulty of providing adequate road services at peak hours must in itself discourage the use of public transport. If, therefore, the problems of road congestion can be solved by carrying passengers underground more efficiently than on the roads the indirect economic advantages of a railway such as Route C might well make up the difference between the additional receipts earned by Route C and a full return on the capital expenditure incurred, but these economic advantages would be shared between London Transport and the authorities who would otherwise have to bear the cost of road improvements. For these reasons, we consider that in arriving at a final decision on Route C it is of the greatest importance to take into account the advantages which will accrue to authorities in London other than London Transport and that the whole subject of financing the heavy capital expenditure which will be needed if Route C is built will require careful consideration.

Improvements at Underground Railway Stations

304. Some stations in central London are very congested during the peak periods, particularly during the evening peak period between 5.15 p.m. and 6.0 p.m. An outstanding example is Oxford Circus Station. We understand that plans for the redesign of some of these stations have been considered but that as the expenditure needed is high it is unlikely that any major improvements will be made for some years (except in connection with Route C if it is built). It has been pointed out to us by London Transport that the expenditure needed to relieve the congestion at some of the important underground stations in central London would run into several millions of pounds and that very little extra revenue would result. The improvements would add substantially to the comfort of passengers in the peak periods but would be very expensive and unremunerative. It is naturally difficult to justify expenditure of this order for the purpose of improving the comfort of passengers for about thirty minutes of the day. The whole of this new expenditure would in a sense remain unused and unnecessary so far as the traffic of the rest of the day is concerned. In their reluctance to incur these heavy sums for the improvement of passenger comfort for a very short period of the day London Transport have shown due regard to economy and a realistic attitude. Nevertheless, the position at some points is so bad that action will be necessary in the near future if conditions are to be prevented from becoming intolerable. We have every sympathy with the view of London Transport that only as a last resort should they be required to incur very heavy expenditure if it is needed only to provide additional comfort during short peak periods of traffic. The alternative of staggering working hours would be from the point of view of London Transport altogether more acceptable and more economical since it would mean that without additional capital expenditure and at a lower running cost the same number of passengers could use the railways in comfort over longer peak periods instead of in acute discomfort during the present exceedingly short peak periods. We consider that before heavy expenditure is incurred vigorous action should be taken on the lines recommended in paragraphs 97 to 107 to persuade the larger employers, including Government Departments, to join in a campaign for staggering working hours.

Garages

305. A considerable number of new garages have been or are being built, and old garages or tramway depots rebuilt, to deal with the post-war expansion of London Transport's bus fleet and the replacement of trams by buses. Nevertheless, a large number of the garages and depots used by London Transport's buses and trolley-buses still occupy sites which were chosen more than a generation ago, including many which were formerly used for horse buses.

This has been criticised in certain representations as indicating that London Transport have not moved with the times. Moreover, in the large provincial cities most of the garages are situated within two or three miles of the centre whereas in London the average distance of the garages from the centre is much greater and there is consequently rather more running time towards the end of a route which, though not scheduled as "dead", carries very little passenger traffic and is therefore rather uneconomic. In general we agree with London Transport's view that the location of most of the existing garages is reasonably satisfactory and that the heavy cost of acquiring land for the purpose of building new garages (as distinct from parking areas and inter-change facilities) nearer the centre of London would not be justified by the operating economies achieved. We feel, however, that consideration should be given to the provision of better inter-change facilities (see paragraph 307) coupled with off-the-road parking facilities for buses at points on the periphery of the central area. The purpose of such facilities would be to reduce the poor running referred to above by allowing buses to be parked in these places and also to reduce street congestion as well as provide better inter-change facilities where they are most needed.

Central Bus Terminals

306. There are no bus stations or terminals in the centre of London comparable with those which exist in the centre of many large provincial cities. We understand that in not providing such terminals the London Transport Executive are following the policy of the London Passenger Transport Board and the predecessor bus companies. Some other cities have taken the opportunity afforded by air raid damage to acquire additional sites for this purpose but the cost involved is very much smaller than that which London Transport would have to incur to acquire sites in central London where land is exceedingly expensive. Moreover, an important difference between London and most provincial cities is that the buses in many of the provincial cities are used for the whole of the journey between the place of residence and the place of work whereas in London a large part of this traffic is carried by the London Transport railways and by the suburban lines of British Railways. The erection of large bus terminals in central London, especially if they were covered, would certainly add to the comfort of passengers particularly during the evening peak period but in so far as it encouraged the filling of buses at certain central points (possibly by passengers who would, but for this facility, travel by rail) it would add to, rather than relieve, the problems of London Transport. In particular it would probably result in fully loaded buses passing points further along the route at which, in the evening peak period, passengers expect to board buses possibly for short journeys only. We do not consider that the pattern of bus services from central bus terminals, which is employed and is appropriate in many provincial cities, would be suitable for London. The cost would be very high and the result might be a deterioration rather than an improvement in the kind of service which the buses are intended to supply in London, as distinct from the kind of service which the railways are intended to supply. We do not, therefore, consider that there should be any alteration in the policy followed in this respect by the London Passenger Transport Board and continued by the London Transport Executive.

Inter-change Points

307. On the other hand we do not consider that the present arrangements for inter-change between buses and trains in central London are satisfactory. There are a number of inter-change points where passengers change from London Transport railway stations, or from the main line termini served by the suburban services of British Railways, to buses in order to complete their

journey to work in the central area. There is a corresponding change during the evening peak period. The scene at some of these places during the peak periods does not suggest an efficient and co-ordinated system of passenger transport although the British Transport Commission has control of all the public passenger transport services in the area. At places such as Victoria Station the arrangements for inter-change are extremely poor. The area available to the British Transport Commission at some of these places, including Victoria, appears to be adequate for a reasonable redesign of the layout so that passengers changing to buses would not have to stand in long and rather confused queues extending into the highway. We recognise that if the proposed Route C tube railway is built there will be substantial relief from queueing at some of the worst points. Nevertheless, we recommend that the matter should be re-examined by the British Transport Commission and the London Transport Executive. There is no doubt that the extreme discomfort, particularly during bad weather, involved in changing at such places as Victoria and Kings Cross must deter many passengers from using London Transport's services, especially if they are able to use private cars. In the long run reasonable comfort and facility for inter-change must be an economically sound policy for the British Transport Commission to adopt, even if there is little immediate return to show for the capital expenditure incurred.

CHAPTER XV

Staff

Recruitment and Turnover of Staff

308. On 31st December, 1953, London Transport had a total staff of 94,605 made up as follows :—

Administrative, etc.	...	...	...	...	5,292
Operating—					
Railways	...	...	...	...	9,507
Road Services	...	...	...	...	48,218
Mechanical Engineering					
Railways	...	...	...	...	4,792
Road Services	...	...	...	...	15,629
Civil Engineering	...	...	...	...	4,974
Electrical Engineering	...	...	...	...	2,459
Staff and Welfare	...	...	...	...	2,261
Miscellaneous	...	...	...	...	1,473

The total number of staff at the end of 1953 was smaller by 6,193 than at the end of 1948 and further reductions have occurred in 1954 ; but these reductions are attributable to some extent to difficulties experienced in the past year or two in recruiting certain grades of staff, particularly for the operation of the road services.

309. The London Passenger Transport Board and the London Transport Executive have always been regarded as good employers and until recently this has not only assisted recruitment but, by enabling the turnover of staff to be kept at a low level, has helped to maintain a high proportion of loyal and experienced staff in all grades. During the last twelve months, however, shortages of staff have developed in certain grades ; this applies particularly to drivers and conductors for the buses and trolley-buses.

310. Details of the turnover of all London Transport's staff, and of the drivers and conductors in particular, in each year from 1948 to 1953, are as follows :—

<i>All Staff</i>	1948	1949	1950	1951	1952	1953
Number at beginning of year ...	97,013	100,798	99,623	98,097	99,279	97,132
Recruitment	N.A.	10,771	14,024	16,813	8,633	9,823
Wastage	N.A.	11,926	15,523	15,780	10,784	12,352
Net transfers	N.A.	20	27	149	4	2
Number at end of year ...	100,798	99,623	98,097	99,279	97,132	94,605
<i>Drivers and Conductors of Road Vehicles</i>						
Number at beginning of year ...	45,957	46,873	46,190	45,779	47,066	46,069
Recruitment	N.A.	4,580	7,356	9,254	4,629	6,249
Wastage	N.A.	4,920	7,464	7,828	5,273	7,194
Net transfers	N.A.	343	303	139	353	498
Number at end of year ...	46,873	46,190	45,779	47,066	46,069	44,626

The turnover and shortages of drivers and conductors have continued at an increased rate in 1954 and we understand that the shortage at the present time is nearly 3,000. This is a matter which obviously requires urgent examination and inevitably involves some consideration of the wages paid and the conditions of service. We refer to these matters in paragraphs 323 to 328 but first we wish to deal with certain matters, arising from evidence submitted to us, which concern the relationships of London Transport's bus crews with the London Transport Executive and with the public.

London Transport's Bus Crews

311. The general standard of efficiency and conduct of London Transport's drivers and conductors is high and compares favourably with the standard in any other city in the country. Carefully planned courses of training are provided and drivers and conductors are tested before being put on public duties.

312. There appears to be general appreciation of the efficiency and courtesy of the majority of London's drivers and conductors. There are, however, complaints that during the early part of a journey a bus will speed and run early, thus missing intending passengers, only to crawl towards the end of the journey. This crawling may be due to the reprimand which may be incurred if the bus arrives early at the final checking point. Further complaints relate to the bunching of buses together, often with long intervals between the bunches.

313. The reasons for this practice appear to be twofold. One reason is that the driver of the second bus wishes to save his conductor from the work of collecting fares. The other reason is the desire to safeguard the standover time allowed at the end of the route which is usually short, perhaps only five minutes at the end of an hour's run. If a bus runs late the bus crew may have to turn round and drive back almost immediately without getting any break at all. This may happen where substantial delays due to traffic congestion are to be expected ; if the traffic proves to be less congested than the driver expected he will find his bus before time and will, therefore, go slow over the final section of the route.

314. We would emphasise that there are many millions of bus users and that we have received comparatively few complaints although most of them are on the same lines. Moreover, much of the bunching and crawling is due to the disorganisation of the bus services by traffic congestion and there is no doubt that in many instances it is unavoidable. Nevertheless the evidence that these practices are sometimes deliberate seems indisputable and is not denied by the London Transport Executive.

315. Other complaints suggest that insufficient consideration is paid to intending passengers about to board buses at fixed or request stops or to passengers who have alighted from a tube or other train only to find that the bus designed to meet the train has just moved off, usually with vacant seats. Our impression is that these are, on the whole, more isolated incidents. They may, however, be indicative, in conjunction with the other matters mentioned, of an attitude of mind towards the undertaking which is unsatisfactory. It seems possible that some drivers and conductors, whilst regarding the London Transport Executive as good employers, may not be sufficiently aware of the important part which they can and should play individually in providing an efficient public service, attracting passengers and improving the financial position of the undertaking.

316. London Transport admit the existence of deliberate practices of the kinds referred to in paragraphs 312 to 315 but suggest that they are the exception rather than the rule. This is one of the matters upon which (as explained in paragraph 10) we would like to have had an opportunity of hearing the views of the representatives of the staff. We invited the trade union concerned to give their views on this and other matters but our invitation was declined. We regret this as we believe that it is impossible to arrive at a fair judgment in a matter of this kind without most careful investigation and after hearing authoritative and representative views.

317. One suggestion which has been made, with the object of identifying the staff more closely with the interests of London Transport, is that bonus payments should be made to drivers and conductors, based upon the fares collected. To pay such bonuses on the basis of the fares actually collected on particular routes or duties would be demonstrably unfair as between one bus crew and another because of the widely varying receipts of different routes and the unpredictable variations in the volume of traffic on any one route. Other possible alternatives which we have considered are also open to objections. Nevertheless, the importance of the matter is such that, in our view, London Transport should consider carefully in consultation with the trade union whether there is any possibility of devising a workable scheme with a view to increasing the interest of their operating staff in the improvement of the service to the public and the collection of fares on the system as a whole.

Railway Operating Staff

318. We have been informed by London Transport that shortages of railway operating staff have not been such as to impair the operation of the services although shortages of unskilled station staff occur from time to time in some areas.

Maintenance and Cleaning Staff

319. We have referred in paragraphs 242, 251 and 270 to the important matter of the numbers of staff employed in the railway and bus overhaul works and in the garages and to the need for further action to improve productivity in these establishments.

Joint Consultation

320. The importance of adequate joint consultation is reflected particularly in the matter of the serious shortage of bus crews and it is essential that the members and senior officers of the London Transport Executive should have a clear appreciation of the point of view of their staff in all grades and in all departments of the undertaking. Full machinery exists for joint consultation at all levels and in all departments of London Transport and the London Transport Executive inform us that it works effectively.

Welfare Services

321. The provision of canteens and recreational facilities is adequate but not extravagant. A transport undertaking covering a large area needs to provide good facilities of this kind if hardships and complaints are to be avoided. The prices charged in the canteens are sufficient to pay all current expenses but not for the cost of the accommodation occupied ; this follows normal commercial practice.

322. London Transport's medical services are of a very high standard and we were particularly struck by the thorough medical statistics which are maintained. One of the results of this statistical examination of medical evidence is that London Transport would be able to focus attention upon any occupational diseases or ailments which may develop. The evidence is encouraging and lends no support to any idea that transport workers are specially vulnerable to certain diseases. London Transport have done pioneer work in this matter.

Maintenance of Adequate Staff

323. We have already referred to a number of factors which affect the efficiency and welfare of the staff of London Transport and their relationship with the Executive and with the public. It is impossible, however, to avoid reference to the vital effect of wages and conditions of service upon the recruitment and maintenance of an adequate staff and therefore upon the efficiency of the undertaking. In paragraphs 324 to 326 we mention two groups of staff—the drivers and conductors of the buses and trolley-buses and the senior administrative and technical staff—but no doubt similar considerations apply to other sections of London Transport's staff.

324. As explained in paragraph 310 the shortage at the present time of drivers and conductors is nearly 3,000. In pre-war days a London Transport bus driver or conductor had regular employment at relatively good rates of pay. To-day, the stability of employment in other occupations has proved to be as good as in transport. Moreover, these other occupations have the advantage of regular hours and usually a 5-day week whereas it is inevitable that bus crews must have duties which extend over the whole of the day during which public transport is needed and over the whole of the week including Saturday and Sunday. At the time of writing this Report negotiations are proceeding between the London Transport Executive and the trade union concerned on the subject of wages and conditions of employment and we therefore make no further comment on it.

325. As to the salaries attaching to appointments in the higher levels, we find that when the London Transport Executive took over the undertaking of the London Passenger Transport Board salaries attached to the higher posts were revised in a downward direction. This has resulted in the anomaly that some present holders of offices are receiving salaries in excess of those now fixed for the posts in question. This is not only anomalous but very unsatisfactory. In industry salaries have in general increased substantially since the war and have to some extent taken into account the increase in the cost of living. The revision downwards of the salaries attached to some of the London Transport Executive's senior posts is thus against the main stream which is found in comparable employments. We consider that whatever the reasons for making this downward revision the effect is harmful and the harm is continuing. Unless in fixing salary scales London Transport take into account the salaries paid in comparable posts in industry it will be impossible to attract and retain the right men. In this matter we cannot do better than quote from the Presidential Address given to the Institute of Transport in 1951 by Mr. A. B. B. Valentine who was a member of

the London Transport Executive from 1948 until 1954 when he became a member of the British Transport Commission :—

“ If we are frank it must be admitted that there are today in some sections of the industry now undergoing re-organisation some groups of people at relatively high levels who are not quite happy. The reasons are not associated with their politics or with nationalisation as such. But there are keen and capable transport men in responsible positions whose status or promotion prospects may seem to them to have been worsened by the consolidation of smaller into larger units of management, and despite themselves their fears or disappointments may have taken the edge off their enthusiasm for their work. Where this happens it is not human to hide it completely, however much one tries, and the adverse effect on morale is electric and far-reaching. Some consciously liberal treatment of these people, some encouraging reassurance, some concession to prestige would cost nothing compared with the cost of losing the inspiration they are capable of giving when anxiety or disappointment does not tarnish their zeal. There are others too, perhaps more numerous, who are disturbed because they fear (and they cannot be blamed for fearing) that salary levels in the upper ranks are in the process of being permanently depressed. The powers-that-be must not dismiss this lightly on the ground that resignations have been few, since most of the senior men of this generation are tied in practice by their non-transferable interests in superannuation funds. It does not follow that their zeal is unimpaired or that in the next generation the best and most ambitious men will be attracted to succeed them unless the prizes at the higher levels are reconsidered. Yet this difficult industry with its great responsibilities cannot afford to be run by second-class leaders.”

326. We have no hesitation in saying that in its senior staff, and particularly in its Chief Officers, the London Transport Executive has men of outstanding ability and we have been impressed not only by their technical skill but by their loyalty and enthusiasm. If there is a decline from the present standards the long-term effect upon London Transport will be serious. The danger of such a decline will exist so long as the remuneration for these posts remains below that for comparable posts in industry generally. The fact that standards of remuneration in transport generally may be lower than in other employments and that London Transport may be no exception does not lead to the conclusion that no action is necessary for London Transport. It is our view that corrective action is of the utmost importance.

327. London Transport has a well-deserved reputation for its high standard of public service and has had it for many years. The recruitment and retention of employees of the right type in adequate numbers and at all levels are vital to the efficient operation of the undertaking. Failure must cause a fall both qualitatively and quantitatively in the standard of service which London Transport offer to passengers and must inevitably encourage them to use other forms of transport with all the attendant consequences for London Transport in the shape of diminished revenue, increased traffic congestion and difficulty of operation.

328. Staff remuneration is the largest item of the cost of operation of the road services and a very large item in the cost of the rail services. Adjustment of wages and salaries can have, therefore, effects of major importance upon the economy of the undertaking. The undertaking must be made to pay its way and at the present time it is not making an adequate contribution towards the central services and capital charges of the British Transport Commission. In the

present circumstances and conditions of operation upward adjustments of wages and salaries must result in increasing the deficit still further. In the absence of corrective action this deficit can only be made good by increasing fares or by contracting the services or by a combination of both. We are of the opinion that this vicious circle of increased remuneration followed automatically by a corresponding increase in fares can be broken if vigorous action is taken to put into force the recommendations made in this Report. Action is needed not only by London Transport but by the authorities concerned with such matters as road congestion, road improvements and the staggering of working hours and much can also be done by the staff of London Transport in co-operating in the task of improving the efficiency of the undertaking. In the matter of the staggering of hours the travelling public itself can make its own direct contribution. It is impossible at this stage to say whether, if these recommendations are adopted, the whole gap can be covered without any increase in fares or contraction of services. We are strongly of opinion that the public transport services provided should not be reduced and if the only choice is between reducing the public transport services and some increase in fares the better alternative from the standpoint of the public is some increase in fares. The object of the recommendations in this Report is to prevent that choice from having to be faced to the extent of matching any such adjustment of wages and salaries by a corresponding increase in fares or reduction in services. We believe that if action is taken on the lines proposed in this Report then in the long run much can be done to improve the finances of the undertaking while maintaining its high standard of public service. If the measures result in substantial improvements in average loadings, increased productivity in the overhaul works and garages and reduced operating costs the benefits can be passed on to the travelling public after solvency has been achieved.

CHAPTER XVI

Public Relations

General

329. London Transport's expenditure on public relations, liaison with the Press and publicity amounts to about £185,000 per annum made up as follows:—

	£	£
Public relations		18,000
Traffic enquiries		10,000
Press office		15,000
Publicity		
Maps, timetables, etc.	45,000	
Posters	16,000	
Press advertisements	20,000	
Books and leaflets	6,000	
Photographs, films and lectures	7,000	
Billposting and advertising store expenses	28,000	
Publicity office salaries, etc.	18,000	
Miscellaneous	2,000	
	<hr/>	142,000
		<hr/>
		£185,000
		<hr/>
		<hr/>

330. The problem of maintaining good public relations for a very large organisation which provides daily services for millions of customers over an area of 2,000 square miles is bound to be difficult. Every passenger who uses the transport system to get to and from work has at least two opportunities every day to find fault if the service fails to come up to his expectation and he will usually be unaware of the circumstances (which may be beyond the control of

London Transport) which are responsible for the failure. Having regard to the numbers of passengers carried every day the complaints we have received have been, in our view, surprisingly few and, in general, moderate in tone. In several of the representations made to us tribute has been paid to the excellence of some part of London Transport's services or to the manner in which London Transport have handled requests for assistance or information. We quote as an example the last paragraph of a memorandum submitted to us by the St. Marylebone Chamber of Commerce :—

“ We also wish to place on record our sincere thanks and appreciation for the most courteous and prompt attention which we have always received from the Public Relations Officers of the London Transport Executive and from their predecessors in the matters which we have taken up with them on behalf of those whom we represent, also for the very fine spirit in which such co-operation and assistance has been rendered by them.”

331. We have examined in some detail a substantial number of complaints made to London Transport and the manner in which the complaints have been handled. In general, we find that care is taken to ascertain the facts and to give the complainant a detailed explanation if it is not possible to make the change in service asked for or otherwise to remedy the matter about which the complaint is made. In some instances considerable trouble is taken by sending inspectors or other members of the staff to ascertain the facts on the spot. In all cases a courteous written answer is given. We suggest, however, that consideration should be given by London Transport to the possibility of handling local complaints locally where it is clear that no principle is involved and no authoritative letter needed.

332. Much of the expenditure referred to in paragraph 329 is designed to attract traffic and particularly to attract traffic during the off-peak periods. We feel, however, that the functions of London Transport and the problems which face the Executive are insufficiently understood not only by members of the travelling public but also by representatives of many public bodies including some local authorities. It is true that most of the information necessary to understand the workings of London Transport and the problems to be tackled is contained in the Annual Reports of the British Transport Commission but these are large volumes which very few members of the public are ever likely to read. We suggest that consideration should be given by the London Transport Executive and by the British Transport Commission to the possibility of explaining more effectively to the travelling public the nature of their task and the problems which they are facing. This is a difficult matter but much misguided criticism and undeserved unpopularity could be avoided if some comparatively small sum were devoted to this purpose.

333. The public relations aspects of some of the decisions taken and arrangements made on the operating side need rather more attention than they have been given. Some examples of what we have in mind are the complaints about the bunching and crawling of buses, and about the failure of buses to wait for passengers, to which we have referred in paragraphs 312 to 315. Another example is the often-expressed view (mentioned in paragraphs 273 to 275) that many ticket collectors at the inward barriers of London Transport's railway stations do their work carelessly and do not appear to care whether they see a ticket or not. Yet another example is the feeling that more information might be given to the public by London Transport (perhaps by radio) in the event of disorganisation of London Transport's rail or road services on account of breakdowns, weather conditions or other causes. In all these cases we suggest that rather more might be done to explain why certain things are done or not done and, if necessary, why unpopular features of the services are unavoidable.

Transport Users' Consultative Committee for London

334. We were surprised to find that comparatively little use appeared to have been made of the Transport Users' Consultative Committee for London, although we understand that the public are now using the Committee more than in earlier years. We have examined the work of this Committee and have consulted the Chairman, Deputy Chairman and Secretary. There is no doubt that the Committee fulfils a useful function in bringing together London Transport and their customers where there is dissatisfaction with the service provided or with London Transport's refusal to provide an additional service. We consider that whatever changes are made in the functions and character of the Transport Users' Consultative Committee for London its existence should be better publicised.

335. The British Transport Commission and the London Transport Executive are both represented on the Consultative Committee and the presence of their representatives undoubtedly enables the technical and expert point of view of the providers of the transport services to be given more informally and more satisfactorily than if it had to be the subject of formal evidence. We understand that the representatives of the Commission and of the Executive do not participate in any votes taken by the Committee but we suggest that it is unsatisfactory for these representatives to have seats on what is intended to be an independent consultative committee representing users of transport. It is important for the Committee not only to be impartial but to be seen to be impartial. London Transport, or the Commission, retain the right to accept or reject the recommendations of the Consultative Committee and they would therefore not lose anything if the independent members were allowed to express their views without the need of carrying representatives of the Commission and the London Transport Executive with them.

336. An officer of the London Transport Executive has been appointed recently to act as Secretary of the Consultative Committee, this work representing only a part of his duties. This arrangement is similar to the position which obtains in respect of the other Area Transport Consultative Committees and is in accordance with the provisions of the Transport Act, 1947, but although the new Secretary will doubtless perform his duties in an entirely satisfactory manner a clearer appearance of impartiality would be given if the Secretary of the Committee were appointed by the Minister from some independent source. In the same way, we consider that the costs incurred by the Committee should be paid for by the Ministry of Transport and Civil Aviation and not by the London Transport Executive or the British Transport Commission.

337. It has been suggested to us that the Transport Users' Consultative Committee for London covers an area which is so large that the members of the Committee cannot have a sufficiently detailed knowledge of transport requirements in all parts of the area and that therefore smaller committees, or sub-committees, should be set up for each area. Whilst we can appreciate the advantages of this proposal we have come to the conclusion that its adoption is not to be recommended. The members of the Transport Users' Consultative Committee for London are aware of the general conditions prevailing throughout the area and are more likely to take an objective view of a proposal relating to a small part of the area than a body representing that district alone. We were interested to learn that on several occasions some members of the Committee had paid an official visit to the district under discussion to examine conditions on the spot. We suggest that the Consultative Committee should be continued in its present form for several years before any proposal for its re-constitution (except in respect of the matters referred to in paragraphs 335 and 336) with or without sub-committees is considered.

The Higher Organisation of the London Transport Executive

338. A chart showing the allocation of duties between the Members of the London Transport Executive and between the Chief Officers and other senior officers of the Executive is given in Appendix III.

339. The Members of the Executive are appointed by the Minister of Transport and Civil Aviation after consultation with the British Transport Commission and consist of a Chairman, a Deputy Chairman, three other full-time Members and one part-time Member. In addition to their collective responsibility for the management of the undertaking as a whole each of the full-time Members of the Executive has a specific responsibility for the work of two or more departments, each of which is in the charge of a Chief Officer. For example, the Chief Staff and Welfare Officer and the Chief Medical Officer report to the Deputy Chairman ; the Chief Civil Engineer, the Chief Electrical Engineer and the Chief Mechanical Engineer (Railways) to one Member of the Executive ; and the three Operating Managers and the Chief Commercial and Public Relations Officer (in respect of certain functions) to another Member.

340. Subject to our comments in Chapter XIX on the relationship between the London Transport Executive and the British Transport Commission we consider that the general lines of the present organisation of London Transport are sound. We recommend, however, that the number of part-time Members should not be less than two. These part-time Members of the Executive with their experience in industry or other fields outside transport should be able to make a valuable contribution to the determination of the broad policy followed in the conduct of the undertaking.

341. Although the existing organisation is generally sound it contains one or two features which we consider to be unsatisfactory. In particular, we think it unsound to add to the duties of the Member of the Executive who is responsible for finance other duties of an entirely different character. It will be observed that the Member concerned is responsible both for finance and for mechanical engineering in relation to the road services. In our view the Member responsible for finance should not be in a position where he has to advocate a project as being one put forward by a Department for which he is responsible and at the same time has the duty of judging and weighing it critically from a broad financial angle.

342. The London Transport Executive have explained that the necessary clear-cut division between finance and other functions is made at the next lower level of responsibility, i.e. at the level of Chief Officer. The Chairman of the Executive has also explained that he does not regard the Member of the Executive concerned as having a special responsibility in respect of finance in the sense that a Finance Director has such a responsibility in a large industrial or commercial organisation. It was explained that the Member concerned was responsible for tabling financial statements but that the true responsibility in financial matters lay with all the Members of the London Transport Executive acting collectively and ultimately with the British Transport Commission. Sir John Elliot's words on this subject are as follows :—

“ I want to remove the idea . . . that Mr. Hawkins is the financial director of London Transport. . . . He is not. The Chief Financial Officer, Mr. James, is wholly concerned with finance and with accounts

and with the profitability . . . Mr. Hawkins no more and no less than any other member of the Executive is, so to speak, the general manager of a certain number of departments of London Transport. There is no direct functional control . . . going right through the organisation and while Mr. Hawkins presents, for instance, the weekly and monthly figures to the Executive because he is responsible for the department of the Chief Financial Officer . . . that is not to say he is both umpire and bowler in the same case. . . . The reason why Mr. Hawkins has other functions added to him which he did not have in the old days* I think can be explained by the change which took place when the British Transport Commission came into being, when the major control of funds and so forth passed to the Commission."

This attitude towards financial responsibility is an important aspect of the question of organisation as between the British Transport Commission and the London Transport Executive and we discuss it further in Chapter XIX. We wish to emphasise, however, that subject to the one possible exception referred to in paragraph 344 we do not consider that there has been any serious weakness or inadequacy up to the present because of this organisational defect in the London Transport Executive.

343. The Members of the London Transport Executive and the heads of all departments are provided with regular and up-to-date operating statistics, together with monthly figures showing in detail how the operating and financial results compare with the budget prepared for the organisation as a whole at the beginning of the year and also with the results for the previous year. The Chief Financial Officer, and where necessary the Executive, then considers in conjunction with the heads of the departments concerned what action is needed if the figures indicate an unsatisfactory movement. The system is efficient and is an indication of firm control by the London Transport Executive of the operations of the undertaking.

344. The possible exception referred to in paragraph 342 is that because of the absence of specific financial responsibility at the Executive level of London Transport we doubt whether London Transport's point of view in financial matters involving expenditure by other authorities (e.g. expenditure by the Ministry of Transport and Civil Aviation on road improvements) has been put forward with sufficient clarity and firmness. The following extracts from an Address to the Institute of Transport given in 1951 by Mr. A. B. B. Valentine, from which we have already quoted in paragraph 325, are relevant :—

"The large saving possible, not only to the providers but also to the users of public transport, by relieving street congestion and improving average speeds, is so apparent to those engaged in operating transport, that we may have fallen into the mistake of thinking it equally self-evident to others. It may not be sufficient to rely on broad assertions and rough estimates such as the calculation that the operating cost of London Transport's Central Buses alone would be reduced by over £2,000,000 a year, if their average speed were raised by only one mile per hour, or that the overall annual loss from delays to traffic in London amounts to some £70,000,000 a year. We may be at fault in not having made for each specific scheme recommended more precise calculations of the diverse benefits, whether expressed in terms of man hours or of money, which would accrue to the community not only through savings of resources including vehicles, fuel and staff, both in public passenger transport and in freight transport, but through the

* i.e. when Mr. Hawkins was Comptroller of the London Passenger Transport Board.

further savings in passengers' time, fuel for private motoring, wear and tear on vehicles, policing and so on, that will always arise from reduction of traffic delays."

* * * * *

"In all the cases I have mentioned, and many others—not necessarily confined to road transport and railways—it is for the economists and statisticians in the industry, collaborating as required with bodies such as the Road Research Laboratory, to whose pioneer work in the field of road engineering and safety I should like to pay a tribute, to measure more thoroughly the benefits, both direct and indirect, accruing to the national economy from capital expenditure on specific schemes, whether for new works or re-equipment, designed to increase the efficiency of transport. Whitehall must not be blamed for blue-pencilling claims not adequately substantiated by the claimants. Yet nothing to-day is impairing the efficiency of transport more seriously than capital starvation."

This we do not regard as a fault of any individual Member or officer of the Executive but as a fault of organisation which should be corrected.

345. As shown in the chart in Appendix III, the duties of the Chief Officers, who are in charge of the departments of London Transport, have been allocated on a functional basis. Some Chief Officers are responsible for common functions which may be concerned both with the road services and with the rail services. Other Chief Officers are responsible for the operating aspects or the mechanical engineering aspects of the road services or of the rail services but there is no general manager for the road services or general manager for the rail services.

346. As the task of London Transport is to provide a co-ordinated system of passenger transport this system of co-ordinating policy only at the highest level, with clear-cut division of responsibility at the level of Chief Officer, has some logical foundation. Nevertheless, the organisation as a whole is so large that we consider that there should be greater co-ordination of the whole of each group of services at a lower level. Consideration should, we think, be given to a re-organisation which would provide for the vesting of co-ordinated managerial functions in one Chief Officer controlling each of the principal branches of the services provided. There could be, for example, one Chief Officer responsible entirely for the country bus services, one for the Green Line coach services, another for the central bus services and another for the railways. Such an arrangement would be consistent with the existence of Chief Officers to advise on specific functions, e.g. mechanical engineering or electrical engineering, in which all the services were interested.

347. The argument which has been advanced by the London Transport Executive that any modification of the organisation to provide for the separate control of each of the services might lead to less co-ordination between those services does not appear to us to be sound. Co-ordination between the separate parts of an organisation can be effected both by consultation between the heads of the sections concerned and by direction from the Executive itself. In our view a re-organisation in which each of the main services—central buses, country buses, coaches and rail services—would have a single manager is worth further investigation.

348. A re-organisation on these lines might permit of a settlement on a firm and adequately co-ordinated basis of much of the day-to-day detail which at present can only be co-ordinated at the Executive level. It would enable decisions to be taken more quickly and responsibility for the running of each of the services to be made more specific and more individual that at present so that if things go wrong the weakness can be discovered and rectified more easily.

349. The organisation of the operating and mechanical engineering departments of the road services includes a system of divisional and district offices. The London Transport Executive have explained to us the functions of the local offices but we are left with the impression that very little power or effective control is left to the officers concerned ; this applies particularly to the six Divisional Superintendents and the 35 District Superintendents who are responsible to the Operating Manager (Central Road Services) and the Operating Manager (Country Buses and Coaches). We appreciate the difficulties which would be encountered in any attempt to decentralise much of the work done at headquarters, e.g. the scheduling of the road services operating through central London and the drawing up of duty rosters for such services, but we suggest that the London Transport Executive might consider to what extent it would be possible, in the interests of greater efficiency and flexibility, to give more responsibility to the local offices.

CHAPTER XVIII

Co-ordination of the Services provided by London Transport and by British Railways

General

350. It has been represented to us that the co-ordination between the London Transport Executive and the British Transport Commission is inadequate. In particular it has been suggested that insufficient use is made of the suburban railway lines operated by the British Transport Commission, especially those north of the Thames ; and also that the inter-change facilities between these suburban services and the services of the London Transport Executive are poor and do not reflect an adequate integration of services which are under the ultimate control of the British Transport Commission.

351. It should be noted that in some instances the suburban lines concerned are heavily loaded with freight traffic ; it would be very uneconomical to sacrifice any of this traffic (if indeed it were possible to do so without disrupting the service) in order to provide additional passenger travelling facilities where there are alternative services provided by London Transport. Passenger transport, particularly the fast and frequent services required for peak hour suburban traffic, fits badly with relatively slow-moving freight trains, and the extent to which it is possible to use the same lines for both services is easily over-estimated by the layman. It is possible that if faster freight trains, with better braking, are introduced at some time in the future it may be possible to increase the amount of passenger traffic using these lines without reducing the amount of freight traffic. This can only be a relatively long-term improvement.

352. Another factor which militates against greater use of these lines is the difficulty of operating intensive suburban services with steam trains. The electrification of the line from Liverpool Street to Shenfield has greatly improved the travelling facilities in parts of north-east London and Essex, and the British Transport Commission have in hand extensions of this electrification to Southend and Chelmsford and also electrification of the lines from Fenchurch Street to Southend and Tilbury. No doubt the Commission's forthcoming plans for modernisation and improvement of British Railways will include further schemes of electrification and other improvements of suburban services, particularly where they have been allowed to decline in recent years, and we consider that

the Commission should press forward with the implementation of these schemes as a matter of urgency and thus relieve the peak-hour load on London Transport's road and rail services. We understand that already somewhat greater use is being made of suburban trains of British Railways particularly where the alternative London Transport services are overcrowded.

Fare Anomalies

353. The use of the suburban services of British Railways is also affected by fare anomalies. In some instances it costs a passenger a good deal more if one of the suburban lines of British Railways is used instead of London Transport's road or rail services. Where this occurs most of the passengers naturally choose the London Transport services (although differences in the time taken may sometimes be the decisive factor). For example, the fares between Richmond and Broad Street by the electric service of British Railways, between Richmond and the Bank via Waterloo by British Railways and between Richmond and Liverpool Street by the District line of London Transport are as follows :—

	<i>Richmond/ Broad Street (British Railways)</i>			<i>Richmond/ Waterloo/Bank (British Railways)</i>			<i>Richmond/ Liverpool Street (London Transport)</i>		
	£	s.	d.	£	s.	d.	£	s.	d.
Single fare			1			1			1
Return fare			2			2			3
Season tickets—									
Three months	9	1	9	7	4	0	7	4	0
One month	3	7	3	2	13	3	2	13	3
One week			18			14			14

354. We are aware that these differences arise principally from the longer route followed by the Broad Street line compared with the other routes and from the existence of a number of sub-standard fares ; indeed, without these sub-standard fares the single and return fares on the Broad Street line and the return fare on the Waterloo/Bank line, based on distances, would be much higher. We are precluded by our terms of reference from making any recommendation on the subject of fares, which is a matter for the Transport Tribunal, but where there are differences, of the magnitude indicated by the season ticket rates shown above, which lead to the inefficient use of the travelling facilities provided by the British Transport Commission we consider that the matter should be further investigated.

Inter-change Points

355. The subject of the provision of inter-change facilities between the London termini (to which the suburban services of British Railways run) and the services—especially the road services—of London Transport has been referred to in paragraph 307. The general impression left on the minds of members of the general public is that the suburban railways are run by an organisation which is entirely separate from London Transport and that there is little attempt to provide proper facilities for inter-change, particularly from trains to buses, at such places as Victoria and Kings Cross. There is no doubt in our minds that London will not be provided with a properly co-ordinated system of passenger transport until much more has been done to improve the inter-change facilities between the railway services operated directly by the British Transport Commission and the road and rail services operated by the London Transport Executive. In addition to physical improvements we consider that there is a need, at most of the London termini of British Railways, for more adequate information, in the form of signs and maps, about all the passenger transport facilities of the Commission, including those of the London Transport Executive.

356. We were informed by the London Transport Executive that co-ordination with British Railways was close and continuous and was effected formally through a network of committees including the London Plan Working Party and the London Joint Advisory Committee and also informally by consultation and the passing of information between individual officers. In answer, however, to further enquiries, which we made in June, 1954, it was stated that neither the London Plan Working Party nor the London Joint Advisory Committee had met in 1954 and that very few meetings had been held in 1953. These Committees themselves, therefore, can hardly be regarded as the means of close and continuous co-ordination. There is no doubt that informal discussion between officers, at a relatively low level, can do much to dispose of detailed problems that arise in the day-to-day administration but this cannot be a substitute for adequate co-ordination of policy, which can only be done at a high level. It is in this sphere that the relationships between the London Transport Executive and the other railway services provided by the British Transport Commission appear to be somewhat defective.

Inter-availability of Tickets

357. Many public passenger transport systems provide fairly freely for the inter-availability of tickets over alternative routes on their own services and are normally prepared to issue through tickets from any one point covered by their services to any other. Suggestions have been made to us that not only should the London Transport Executive be prepared to provide for the inter-availability of tickets throughout London Transport's services and for combined road/rail tickets but that the British Transport Commission should in addition be prepared to grant such facilities covering British Railways as well as the London Transport Executive's services.

358. One obstacle to the extension of these facilities is that there exist certain sub-standard fares which the British Transport Commission would wish to see abolished and that the granting of inter-availability might mean an extension of these sub-standard fares over routes on which they do not at present apply. Another objection is that the work of the conductors on London Transport's road vehicles is at present so arduous during rush hours that the addition of the work involved in issuing combined tickets or examining tickets issued on other vehicles would be quite impracticable. There would also be a risk of losses by fraud.

359. We feel that there is considerable substance in the arguments put forward by the British Transport Commission and the London Transport Executive and we doubt whether it would be practicable to extend these facilities as far as many people would like. It may, however, be possible to make some further extensions and particularly to remove some of the worst anomalies such as those indicated by the example in paragraph 353 and we recommend that this possibility should be considered further.

CHAPTER XIX

Relationship between the London Transport Executive and the British Transport Commission

General

360. Under the scheme of organisation contained in the Transport Act, 1947, the British Transport Commission retained the overriding responsibility for the provision of a co-ordinated and efficient system of transport throughout the country but the day-to-day management of the various undertakings which were

vested in the British Transport Commission was delegated to a number of Executives including the Railway Executive, the Docks and Inland Waterways Executive, the London Transport Executive, the Road Haulage Executive, the Road Passenger Executive and the Hotels Executive. As explained in paragraph 19, in 1953 all the Executives other than the London Transport Executive were abolished and the British Transport Commission took over the direct management of the undertakings for which those Executives had been responsible. The position to-day, therefore, is that except for London Transport the British Transport Commission manage directly all the undertakings vested in the Commission and have appointed various management bodies over which the Commission have complete control. In respect of London Transport, however, there remains a statutory body—the London Transport Executive—appointed by the Minister of Transport and Civil Aviation with duties assigned to it in a rather formal manner under an Act of Parliament. It is true that the ultimate responsibility, and particularly the financial responsibility, remains with the British Transport Commission, but the Commission have not the same unquestionable power over the London Transport Executive that they have over the management bodies which the Commission have set up to operate the other services for which the Commission are responsible; nor have they the power of appointing the Members of the Executive or of determining the terms of office. This power is reserved to the Minister of Transport and Civil Aviation.

361. This is an unsatisfactory state of affairs and although it is clear that there is no personal friction between the Members of the British Transport Commission and the Members of the London Transport Executive the state of semi-independence of the London Transport Executive has not been conducive to the clear division of responsibility which is necessary if this large organisation is to remain efficient.

362. In particular we feel that the existence of the British Transport Commission in an intermediate position between the London Transport Executive and the Minister may have had the effect of taking the edge off the sense of financial responsibility of the London Transport Executive. At the same time, as explained in paragraph 344, the feeling in the minds of the Members of the London Transport Executive that ultimate financial responsibility rests with the British Transport Commission may have led to inadequate representations in such matters as the urgency and economic soundness of improving London road conditions and to a rigidity in attitude of the London Transport Executive in certain matters where capital expenditure might have yielded a substantial return.

363. This point is brought out in the oral evidence given by Sir John Elliot, the Chairman of the London Transport Executive, from which we have quoted in paragraph 342, and particularly in his emphasis that the Member of the London Transport Executive who had special responsibilities in respect of finance was not in any sense in the same position as a Finance Director of a large industrial or commercial organisation because financial responsibility was vested in the British Transport Commission.

364. The natural question which we ask is whether there is anything now done by the British Transport Commission in relation to the London Transport Executive's undertaking which the London Transport Executive itself could not do equally well or better. Given that the Members of the Executive are well chosen and competent we can find little justification for dividing responsibility for this very large undertaking between two statutory bodies—the London Transport Executive and the British Transport Commission. Co-ordination between the suburban services of British Railways and the road and rail services of the London Transport Executive does not appear to us to be any better to-day than it was when these organisations were under separate control.

365. There are two possible solutions of this problem. One would be to make the London Transport Executive completely independent of the British Transport Commission and responsible directly to the Ministry of Transport and Civil Aviation. To do this it would be necessary to transfer the ownership of the undertaking from the British Transport Commission to the London Transport Executive so that ultimate financial responsibility would be vested directly in the body which has operational responsibility, i.e. the London Transport Executive. Certain minor functions, e.g. advertising and the letting of sites on London Transport property, would also be transferred to the control of the London Transport Executive.

366. Among the factors in favour of this solution are the following :---

- (a) The British Transport Commission are not responsible for the passenger transport service of any other large city and there may not be a good reason for singling out London for this special treatment.
- (b) The London Transport Executive took over almost unchanged the duties of the London Passenger Transport Board which had been a very efficient public body with a well-developed tradition of service and loyalty. It is possible that this tradition, so important in a passenger transport undertaking, might be lost if London Transport were absorbed into a much larger and newer undertaking which cannot have developed as yet a similar tradition.
- (c) When two organisations which are essentially dissimilar in character are linked together in a common management, decisions which may be appropriate and practicable in one organisation may be inappropriate or impracticable in the other. London Transport are concerned entirely with local passenger transport provided by road services and by underground railways ; the British Transport Commission's main task is to deal with long-distance passenger and freight traffic.
- (d) London Transport is a large enough undertaking to merit independent status. Such independence need not involve abandoning the task of providing a fully co-ordinated system of passenger transport in the London area. There are many examples in the provinces of the closest co-operation between separately-owned road transport undertakings which result in arrangements for inter-working to cover the overlapping needs of a large area. For the London area, where an important part of the facilities is provided by the suburban lines of British Railways, some such device as the full- or part-time appointment of a Member of the British Transport Commission to the Board of the London Transport Executive might help to ensure full co-ordination.

367. The other solution would be to abolish the London Transport Executive so far as its legal status was concerned, leaving the British Transport Commission full and unquestionable control over the undertaking and the direct operational responsibility as well as financial responsibility. It is probable that if this solution were adopted the British Transport Commission would decide to appoint a Management Board which, in practice, would not be very dissimilar from the London Transport Executive ; the difference would be that the British Transport Commission would have complete control, including the right of appointing members of the Management Board.

368. Some of the factors in favour of this solution are :—

- (a) It would get rid of what appears at present to be an arms-length relationship between the British Transport Commission and the London Transport Executive.

- (b) It would facilitate the handling of matters which require the closest co-ordination between the London Transport system and the services of British Railways.
- (c) The Commission already own many road passenger undertakings (the Tilling and Scottish bus groups) and have substantial interests in others. Although in general these undertakings do not provide services strictly comparable with those of London Transport they do have some problems similar to those of London Transport's road passenger services. Some economies might therefore be expected to accrue if all the Commission's road passenger transport undertakings were controlled fully by the Commission.

369. A decision as to which solution should be adopted would depend upon the relative importance attached to such factors as the need, on the one hand, to give London Transport a more direct sense of financial responsibility and a more direct access to the Minister and the importance, on the other hand, of co-ordinating all passenger transport in the London area.

370. Although in our view a change should be made in the present organisation in the interests of the efficiency of the London Transport undertaking the decision as to which solution is adopted involves factors other than efficiency which the Minister of Transport and Civil Aviation may wish to take into account. We therefore make no recommendation on the subject.

Local Authorities and the London Transport Executive

371. Suggestions have been made to us that local bodies, and in particular local authorities, should be represented on the London Transport Executive and that this would lead not only to greater efficiency but to more sympathetic handling of local problems.

372. Whether the undertaking at present carried on by the London Transport Executive remains under the control of the British Transport Commission or becomes independent of the Commission we do not consider that representation on the Executive by local bodies would lead to greater economy or efficiency as we feel that there might be less firmness in dealing with matters in which local interests conflicted with the interests of the area as a whole, extending as it does into several counties.

373. There is the further consideration that the provision of public passenger transport is a highly technical matter about which there are inevitably a number of popular misconceptions. It is doubtful whether in these matters a large board containing a number of representatives of elected bodies could work as effectively as a relatively small body composed mainly of transport experts having continuity of experience. We consider that the analogies which have been drawn with other public utilities are not sound.

CHAPTER XX

Standards of Service*

374. The standards of service provided by London Transport can be judged only by the extent to which the wishes of passengers or potential passengers are met. The subject can be considered under the following headings :—

- (a) Safety.
- (b) Speed.

* Many of the points dealt with in this Chapter have been referred to in earlier Chapters in other connections ; for convenience they are brought together in a single Chapter.

- (c) Punctuality.
- (d) Comfort while travelling in buses or trains.
- (e) Comfort at waiting or exchange points.
- (f) Frequency.
- (g) Proximity of route to the passengers' objectives.

Safety

375. So far as safety is concerned the standards maintained by London Transport are very high indeed both on the railways and on the road services and the record of accidents is good. London Transport have always paid particular attention to safety and in our judgment the results obtained are well worth the costs involved.

376. These costs, in respect of the road services, arise mainly from the high standards of maintenance insisted upon not only by the Ministry of Transport and Civil Aviation but also by London Transport. We have suggested in earlier paragraphs of this Report some possible methods of reducing maintenance costs without reducing standards of safety but we do not suggest that these standards themselves should be relaxed. A lower standard of maintenance would not cost much less and, if it caused an increase in the number of accidents, would impair the very high degree of confidence at present placed by the travelling public in the services provided by the London Transport Executive. It might also cause a substantial increase in the cost of claims made for compensation which at the present time compares favourably with the cost of claims made against transport undertakings in other large cities in the United Kingdom and is low by comparison with the public transport undertaking in New York.

377. On the underground railways the record of passenger safety has always been very high and on the tube railways, in particular, it was almost perfect prior to the accident in April, 1953, on the Central line at Stratford. The infrequency of accidents on the London Transport railways has served to attract particular attention to the first accident which involved loss of life of passengers on any of the tube railways. The report on that accident made by one of the Ministry's Inspecting Officers of Railways showed that the accident was due to the failure of certain employees to follow regulations which were designed to prevent the kind of accident which occurred. It was suggested to us by certain local authorities that the rules which allowed the driver of a tube train to pass a red signal in certain circumstances should be modified to prevent the recurrence of a fatal accident such as that which occurred at Stratford. This matter is referred to in the Inspecting Officer's report, which contains the following comments :—

“ ‘ *Stop and Proceed* ’ Working. This method of working has been found necessary on the Executive's tube, underground and surface lines, all of which have a very intensive train service and are equipped with automatic signals remote from and uncontrolled by signal boxes. Generally speaking, it is only when ‘ *Stop and Proceed* ’ working has to be adopted that safety is completely reliant on the human element. Otherwise, electrical and mechanical devices are provided to counteract its fallibility and to prevent collisions between trains.

‘ *Stop and Proceed* ’ working is not uncommon and has to be adopted to enable a disabled train to be pushed ; it also results from the failure of a track circuit or signal. It is satisfactory to note that the number of such failures has been greatly on the decline in recent years. The comparatively small number of accidents resulting from this method of working is indicative of the caution generally exercised by drivers.

Nevertheless, there have been accidents, and if the well justified faith of the public in the Executive's railway system is to remain, a recurrence of an accident such as this one must be avoided."

* * * * *

"It would be unreasonable to suggest the abolition of 'Stop and Proceed' working for it would completely dislocate the service and would cause hardship to many thousands of Londoners."

378. We agree with the Inspecting Officer's view that such a modification of these rules is undesirable. It is impossible to eliminate failures due to the human element in all conceivable circumstances and we consider that the present system goes as far as is reasonable to ensure the safety of passengers provided that the Inspecting Officer's recommendations are adopted. The imposition of any stricter regulations which would slow up trains and cause congestion when minor breakdowns occur would, in our opinion, be undesirable and unnecessary. Indeed, we consider that the comparatively new system of speed control signalling already introduced on certain lines (to which we have referred in paragraph 198) should, notwithstanding the cost involved, be extended to other sections of the underground system so that one train can with safety approach close to another in order to move peak period traffic as effectively as possible.

Speed

379. The speed of the road services depends to a large extent on road conditions and the degree of traffic congestion, to which we have referred in paragraphs 130 to 141. It is true that the average speed of a bus in central London is lower than in other British cities. On the other hand the average speed is higher in London than in New York, Montreal and many other major cities overseas. The differences are to a large extent a reflection of traffic conditions, although the efficiency of the vehicle itself makes a contribution according to its engine power and powers of acceleration and braking. It is to the credit of London Transport that, despite the exceptional traffic conditions in London, the average speed maintained does not fall far short of the speed in other British cities where there is much less traffic congestion; it is, in fact, better than the pre-war average for London.

Punctuality

380. The punctuality of the road services, as well as the speed, is affected by traffic congestion, although the practices of bunching and crawling referred to in paragraphs 312 to 314 also have a bearing on this matter. In the circumstances the standard of punctuality maintained by London Transport's road services is reasonably good but there is need for constant attention to this matter since a low standard of punctuality is one of the most important factors which encourage the use of private cars rather than public transport. The standards of punctuality on London Transport's railways are excellent.

Comfort in Buses and Trains

381. The comfort of passengers in a public road vehicle depends upon such factors as the style, springing, furnishing, cleanliness and ventilation of the vehicle; upon ease of movement both within the vehicle and on and off the platform; upon the skill of the driver and the efficiency and courtesy of the conductor; and upon many other apparently trivial matters extending even to such features as the adequacy of the destination signs. The present standards of London Transport for seated passengers are high and will be higher still when the new London Transport R.M. ("Routemaster") bus is introduced

into service. The existing standards compare favourably with those in other cities and are, for example, much higher than the standards provided in New York.

382. The extent to which standing passengers are allowed affects the standard of comfort materially but also affects the cost of operation. In most large cities abroad there is practically no limit to the number of passengers allowed to stand in a bus. This practice adds greatly to the discomfort of passengers in the bus, whether standing or seated, but very materially reduces the cost of operation. It has been explained in paragraph 57 that, whereas the cost of operating during the off-peak periods a bus which is needed for the peak periods is relatively small so that off-peak operation can be profitable with a fairly light load of passengers, the cost of providing an additional bus for peak period traffic is substantial. In the latter case the full costs, including capital charges and the cost of an additional bus crew, have to be taken into account. Contrary to general belief, it is frequently the additional bus provided to cope with peak period traffic which is unprofitable although it is well loaded during the peak periods ; and the lightly loaded off-peak bus which is profitable. For this reason, if during the peak periods buses were allowed to be crowded in London as they are in New York, Montreal and indeed in nearly all cities abroad, the need to provide so many additional buses during peak periods would disappear and London's transport could be operated with substantially fewer buses and fewer crews and therefore more cheaply. In some cities abroad it is not uncommon to find as many standing passengers in a bus, trolley-bus, or tram as there are seated passengers. Thus, during the peak period, these vehicles can carry practically double the load that the London buses can carry so that hardly more than half the number of vehicles are required.

383. As we have pointed out in paragraph 166, it has been decided that on the bus and trolley-bus services in London, which are operated mainly by double-deck vehicles, the number of standing passengers should be strictly limited. This means that a higher standard of comfort is provided and the vehicle is designed accordingly. It would be possible in London to have an entirely different rule and to design the vehicles for a large number of standing passengers. If this were done there would no doubt be a substantial reduction in the cost of providing the service but three consequences would follow :—

- (a) The conductors' task would probably be much more onerous and conductors would be correspondingly more difficult to recruit.
- (b) The loss through non-collection of fares would rise substantially.
- (c) The standard of comfort would fall.

384. It must always be a matter of judgment whether to provide a service with a lower standard, and therefore at a lower cost, or to provide a service with a higher standard and therefore at a higher cost. In our opinion it would be unwise to make any general change in the practice followed hitherto in London and it would be better to maintain the present high standard of service notwithstanding the cost involved. Our reasons for this opinion are twofold. First, we believe that the great majority of passengers would prefer the higher standard notwithstanding the higher cost to them in higher fares. Secondly, the importance of attracting the occasional passenger and of competing with the private car for marginal passengers (whether regular or occasional) can hardly be overstated. As pointed out in paragraph 141 one of the hopes of solving the problem of traffic congestion in London lies in a greater use of the public passenger transport system and unless the standards of comfort provided are maintained it will not be possible to attract people away from the private car to the public transport vehicle. The only exception to our view that "standee"

buses would not be suitable for service in London is that a few buses of this kind might perhaps be used for the special short-distance services in peak periods in central London which we have suggested in paragraph 160 or for special contract services to factories.

385. Discomfort on London Transport's railway services is largely a matter of overcrowding during peak periods. Figures which we have received from London Transport indicate that on some lines overcrowding is worse during short sections of the peak periods than was the case in pre-war days. As explained in paragraphs 97 to 107 the standard of comfort could be raised substantially and the cost of operation reduced if working hours were staggered effectively ; unless and until very heavy capital expenditure is incurred on new rolling stock and additional lines there will be no other means of improving the standard of comfort at these places at the peak periods of travel.

Comfort at Waiting and Exchange Points

386. The main respect in which in our view London Transport fail to provide a standard of comfort which is needed to attract marginal travellers is, as explained in paragraph 307, in the lack of adequate facilities where passengers desire or need to transfer from one vehicle to another or from one service (e.g. the railways of London Transport or British Railways) to another (e.g. the buses). The speed and regularity of the service and the comfort provided in the vehicle itself are of little avail if the journey has to be followed or preceded by long queueing in wind and rain, as at Victoria Station, or if because there is inadequate space for proper queueing arrangements (e.g. in Oxford Street) there is a sense of grievance because passengers do not board buses in their proper turn. We consider that notwithstanding the rather high capital cost which may be involved the provision of more adequate inter-change facilities and of greater comfort for passengers before and after their journeys on the vehicles of the London Transport Executive is essential if passengers are to be attracted away from the use of private cars either within, or to and from, central London. In the long run the cost of these important facilities must represent only a fraction of the extra cost of road building needed to cope with the increased traffic congestion which will be inevitable unless greater use is made of the public transport system.

Frequency of Service

387. We have pointed out in paragraph 95 that the frequency of the service which can be provided is to a very large extent dependent on what the travelling public is prepared to pay for. Additional buses can be provided, and queueing time thus reduced, at peak hours only if London Transport's passengers are willing to bear the high cost of providing vehicles which can be used only for two short periods each day. London Transport have recognised the need to maintain road and rail services during the off-peak periods at a frequency which, though more than is needed to carry the traffic offering, is regarded as the minimum if the service is to attract the casual passengers whose custom makes a valuable contribution to the finances of the undertaking as a whole. The problem of providing sufficient trains on the tube railways at the peak periods is a technical one and, until substantial capital expenditure is incurred on improved station layout, improved signalling and higher capacity rolling stock, it is not possible for more trains to be put through at these times.

Proximity to Passengers' Objectives

388. From the evidence given to us by London Transport, to which we have referred in paragraphs 70 to 82, we conclude that London Transport's standards when deciding whether or not to provide a new service or to extend an existing

service are generally reasonable. There will always be a number of people who would like services, particularly bus services, modified to meet their own convenience and there will also be cases where local authorities will feel that more should be done for the residents of their areas, but we consider that London Transport have handled claims of this kind with care and sympathy even where on grounds of economy they have not been able to put in the service demanded, or the whole of that service.

General Conclusion on Standards of Service

389. Taking a long view, the provision of a safe, speedy, punctual, comfortable and generally satisfactory service must not only be the objective of London Transport but must also be correlated with any policy of restricting kerbside parking of private cars. In other words, restrictions on the use of the kerbside for parking should be accompanied by an improvement of the public road and rail services, which would be facilitated by the reduction of congestion in the streets.

390. Given the conditions under which the undertaking operates we consider that, with minor exceptions, London Transport provide almost as effective a service as is possible. It follows, however, from what has been said that the maintenance of some services which are not of themselves directly economic may be desirable as part of the general policy of inducing the public to use public transport rather than to use their own cars ; thus a service in one area which is somewhat uneconomic may discourage the use of private cars and their entry into other areas which are heavily congested. This is an indirect result which may well justify London Transport in maintaining a high standard of service, whether by rail or by road, although at first sight the standard might appear to be unwarranted by the direct receipts obtained.

CHAPTER XXI

Summary of Conclusions and Recommendations

General Conclusions

391. Our main conclusion is that while a marked improvement in efficiency and substantial economies could be achieved if the measures referred to in the following paragraphs were taken the undertaking carried on by the London Transport Executive is conducted efficiently and with due regard to economy. Some of the most important and most effective of the suggested measures, including those relating to traffic congestion, involve decisions and heavy capital expenditure by authorities other than the London Transport Executive ; others, including those relating to maintenance costs, involve internal action by the London Transport Executive itself. These measures are all the more urgent because of the unsatisfactory financial position of the undertaking.

392. London has one of the best passenger transport systems in the world and it is served by a body of workers of all grades who have a fine tradition of loyalty and public service. If, however, steps are not taken to improve the external conditions in which London Transport operates and if certain internal reforms are not made there is a serious danger that the standards of efficiency will decline and costs will rise with an inevitable reaction upon fares.

393. It is necessary to take action not merely to maintain existing standards but to improve upon them if the public passenger transport system in London is to compete successfully with other means of passenger transport in the area. We believe that the greatest contribution to the solution of the growing problem of traffic congestion in London can be made by London Transport if it is adequately supported and if, as a consequence, a growing proportion of travelling in the central area is done by public transport instead of private transport.

394. The standard of service provided by London Transport is high except for (a) acute over-crowding at a number of points during peak hours, (b) poor inter-change facilities and (c) some irregular and slow running of road services which pass through congested streets. The standard of service can never be independent of the fares charged : without any change in economy or efficiency a better service could be provided at a higher level of fares ; at a lower level of fares the undertaking could still be made to pay by a reduction in the standard of service provided. Any substantial reduction in the standard of service, and in particular in the frequency of service, in order to make reductions in fares possible or to avoid increases in fares would lead to the increasing use of private means of transport in the area and would have an adverse effect upon traffic congestion which is already becoming critical. We consider that vigorous measures should be taken on the lines suggested below to secure greater economy and efficiency and that everything possible should be done to avoid a reduction in the services provided. We would regard an increase in fares as the lesser evil.

Size of the London Passenger Transport Area

395. No reduction should be made in the size of the area but certain boundary adjustments should be considered (paragraphs 30 to 34).

The Financial Results

396. If account is taken of the need to make a suitable contribution towards the British Transport Commission's central charges (covering interest on capital and central services provided) London Transport has incurred a deficit of approximately £12½ millions since it commenced operations on 1st January, 1948 (paragraphs 35 to 38).

Level of Fares

397. Fares have in fact increased since pre-war days less than the general increase in prices but there has been some reduction in the standard of service as measured by (a) the number of standing passengers in tube trains at the peak periods of travel and (b) the average length of queueing time for buses at the same periods. Comparisons with the fares charged in other transport undertakings can be misleading ; London fares are not much higher than those charged in provincial cities although wage rates and some other costs are higher in London (paragraphs 39 to 42, 87 to 90 and Chapter XX).

398. Differences in operating conditions make comparisons with the results achieved by other passenger transport undertakings difficult and somewhat misleading. It is to be observed, however, that with slightly lower fares the municipal undertakings in Birmingham, Glasgow, Liverpool and Manchester made small surpluses in the year ended 31st March, 1954 (31st May, 1954 for Glasgow) while London Transport made a deficit in the year ended 31st December, 1953 (after allowing for a contribution to the central charges of the British Transport Commission (paragraphs 44 to 46)).

399. Receipts per vehicle mile on London Transport road services are lower than those on the undertakings referred to in the preceding paragraph although the fares are a little higher ; this is due to poorer average loadings (paragraphs 84 to 91).

Provision of Unremunerative Services

400. When considering whether a service is unremunerative it is necessary to take into account the effect of the service upon the profitability of other parts of the undertaking, and in fact some apparently unremunerative routes are worth maintaining because of this secondary effect. The provision of a comprehensive system of public passenger transport, covering parts of an area where the service may not be very remunerative, plays an important part in reducing the use of private cars in the more congested parts of the area (paragraphs 53 and 67 to 69).

401. London Transport's theoretical reasons for providing or refusing to provide a service which has been demanded, but which is expected to be unremunerative, or for maintaining or withdrawing an existing unremunerative service are, in the view of some members of the Committee, open to question, but the Committee are unanimous in finding that in practice London Transport's decisions are reasonable (paragraphs 70 to 83).

402. The provision of underground railway services which may be only marginally profitable plays an important role in relieving traffic congestion on the surface and this factor must be taken into account when considering the economics of existing or proposed tube railways (paragraphs 68 and 300 to 303).

403. The sight of partly filled buses in central London during the off-peak period between the morning and evening rush periods is not necessarily (as is commonly supposed) a sign of inefficiency. As these buses and crews have to be provided for the morning and evening peak periods it is more profitable to employ them for the relatively light off-peak traffic than to keep them idle (paragraphs 55 to 62).

404. In the special circumstances described in paragraph 117 consideration should be given to allowing or even encouraging private operators to undertake certain minor services where London Transport cannot provide the services except at a substantial loss (paragraphs 50, 83 and 117).

Peak Period Travel and the Need to Stagger Working Hours

405. The concentration of travel in two very short peak periods (towards central London in the morning and away from it in the evening) is more acute today than it was before the war. This concentration means not only great discomfort on the tubes and other railways of London Transport and longer waiting for buses but adds very substantially to the cost of providing the transport service. This added cost is due to the need to employ staff in numbers sufficient to cope with these surges of traffic but in excess of the requirements for the greater part of the day. Extra capital has also to be invested in rolling stock (buses and tube trains) which is in excess of requirements except for one short period in the morning and another in the evening.

406. A great contribution to the reduction of travel costs and to the improvement of the services in London could be made if working hours were staggered so that a smaller staff and a smaller rolling stock could move all the passengers in greater comfort. A fresh and vigorous campaign for the staggering of working hours is needed but unless this is led by the Ministry of Transport and Civil Aviation with the full support of other Government Departments (as employers

of large staffs in London), the nationalised undertakings, local authorities and representative bodies of employers and employees it is likely to fail because the efforts of small groups in the past have been frustrated by the indifference of other employers including Government Departments. In such a campaign it should be made clear that if the great majority of the millions who work in the central London area continue to start work at the same time, 9 a.m., and finish at the same time, 5.30 p.m., then they must be prepared to pay, in the fares charged to them, for the luxury of maintaining an inflated transport organisation which must be under-employed for the rest of the day. We do not recommend legislation to make the staggering of working hours compulsory (paragraphs 92 to 107).

System of Charging Fares

407. A charges system in which a fixed fare is charged for any journey however long or short operates in most American cities and has the advantage that it enables buses to be operated by one man, the driver-conductor, and so substantially reduces the main operating cost (the wages of the bus crews). It also reduces costs on the underground railways where fares are collected in a coin gate and no tickets are issued. We regard such a system as wholly unsuited to the conditions of London Transport where the length of journeys varies from less than a mile to over twenty miles. The present system in London is fairer and encourages the use of the transport facilities for short occasional journeys in the off-peak periods. We do not recommend any change to the American system from the present system notwithstanding the higher operating costs which the latter involves (paragraphs 110 to 112).

408. We do not recommend any change in favour of further differentiating fares according to the costs of providing services on different routes (paragraphs 113 to 116).

409. The possibility of extending the system of special contracts where a concentrated service is needed for short periods only (e.g. to and from a factory) should be considered (paragraph 118).

410. Consideration should be given to the provision of better all-night services and to the charging of higher fares for night services, as is the practice in certain provincial undertakings (paragraphs 119 and 120).

411. The charging of lower fares in the midday off-peak periods is not likely to make a substantial improvement to London Transport's finances (paragraphs 121 and 122).

412. Early morning sub-standard fares are outside our terms of reference, but if any proposal for their abolition is considered the effect upon peak period travel conditions should be taken into account (paragraph 123).

Loadings on the Road Services

413. On average 30 per cent. of London buses are taken out of service during the daytime off-peak period. This compares with 50 per cent. in Liverpool and 70 per cent. in Birmingham and Manchester. The profitability of withdrawing buses from service in the day-time off-peak period is affected by the conditions of employment of bus crews. If, as in London, full wages have to be paid for any unworked time in this period it may be more unprofitable to keep the buses idle than to put them on the roads to carry light loads but the effect is to bring down average loadings for the whole day and to put up average costs. London Transport is not so favourably placed as certain provincial undertakings and its loadings are lower than they would be if more buses could be taken off during

the day-time without increasing net losses. This is one of the matters which should be the subject of the re-examination referred to in paragraph 433 below (paragraphs 124 to 129).

Traffic Congestion and its Alleviation

414. Delays due to traffic congestion are very costly to London Transport as well as to other road users. Wages of bus crews are paid on a time basis but fares are charged on what is roughly a mileage basis, so that the longer it takes to do a journey the higher is the wage cost in relation to the fares collected. Other costs rise in the same way. The average speed of buses in London, though slightly higher than before the war, is lower than that of buses in other major cities in this country. This alone means higher costs in London. In many cities overseas such as New York and Montreal, the average speed of buses is much lower than that of buses in London and this is due to still greater traffic congestion. With the growing number of private cars on the roads, unless action is taken urgently the congestion will get worse and the cost of operating London buses will go on rising. The failure of successive Governments for fifty years to take effective action is a matter of deep concern. Other committees have demonstrated the urgency and the economic soundness of expenditure designed to ease the flow of London traffic and the waste of resources which results from failure to expend the relatively small amounts needed to ease the flow at the worst spots. With the growing number of private cars on the roads this problem together with the related problems of kerbside parking, car parks and waiting restrictions has become very urgent. If London Transport are given conditions in which they can supply a more efficient public passenger transport service the case for stricter parking and waiting rules becomes stronger and more acceptable, particularly if additional parking facilities are provided at suburban stations. With relief from traffic congestion the efficiency of London Transport's road services would rise and the prospects of the fuller use of public transport services would be improved; this in turn would tend to ease traffic congestion by a voluntary reduction in the number of private cars brought into the central area. We recommend that the more important road improvements, particularly at the points where there are notorious bottlenecks, should be put in hand without delay (paragraphs 130 to 141).

The "Wheel Plan"

415. Under this scheme, which was first put forward by the Greater London Area Council of the National Chamber of Trade, the existing bus services which pass through central London would be replaced by a system of (a) suburban buses which would terminate at points on the edge of the central area and (b) central bus services which would not go outside the central area. The object would be to reduce the number of poorly filled buses in the central area, to reduce such congestion as is caused by an excessive number of buses in this area and to improve the suburban bus services by increasing the number in operation and by ensuring greater punctuality (since the buses would not pass through the congested central area).

416. We do not recommend the adoption of the "Wheel Plan" which in our judgment (a) does not take into account sufficiently the very complex character of the passenger traffic carried by London buses; (b) would cause hardship and added expense to many passengers; and (c) would cause more confusion and disorder than it would stop. We consider, however, that some improvement of the central services is needed on the lines explained in paragraph 418 below (paragraphs 145 to 154).

Shortening of Bus Services

417. London Transport have for some time adopted the practice of turning some buses short of the centre of London in order to concentrate upon stretches of routes where the passenger traffic is heavier. They have also recently introduced a system of turning a bus where owing to traffic congestion there is a bunching together of buses in one direction and gaps in the other. We consider that the extension of these practices is desirable and is to be preferred to the adoption of a more revolutionary change such as the "Wheel Plan" (paragraphs 155 to 158).

Special Bus Services in Central London

418. In order to cope with the exceptional surges of traffic which occur at certain points in the central area where large numbers of workers want to travel between two points (one of which is generally a railway station) we recommend that London Transport should experiment with special services possibly at a fixed fare for the whole of the short journey involved. The buses used might either be the standard double-deck bus or a special bus, possibly of the "standee" type referred to in paragraph 426 below, and there should be some indication, e.g. by the colouring of the bus, that it is on the special services. These special services would be designed not merely to move a large number of passengers quickly, but also to ensure the full collection of fares. At present non-payment and under-payment of fares occur more commonly on the standard services by double-deck buses where there are these exceptional surges of traffic because of the conductor's difficulty in getting round a bus crowded with passengers nearly all of whom are doing a short journey and are alighting at the same point (paragraphs 159 and 160).

"Limited Stop" Bus Services

419. We do not consider that limited stop bus services on the lines of those operated in some large provincial cities are suitable for London, where the underground railways serve substantially the same purpose as the limited stop services in provincial cities (paragraphs 161 to 163).

Circular Bus Routes

420. We do not recommend the introduction in the central area of London of a greater number of circular routes (paragraph 164).

Bus Timings

421. Consideration should be given to the alteration of bus timings to make a greater variation between times when, owing to traffic congestion, journeys can only be done at a low average speed and other times when a greater speed is both practicable and desirable (paragraph 165).

Standing Passengers

422. We do not recommend any general increase in the number of standing passengers but we recommend that consideration should be given to the extension of the period during which standing passengers are allowed (paragraphs 166 to 170).

Collection of Fares

423. The loss to London Transport through non-payment and under-payment of fares on the road services is substantial, but there is no evidence that this loss is proportionately greater than that sustained by other passenger transport undertakings operating in urban areas. The loss from this cause on the rail services is very much smaller.

424. Where non-payment of fares is due to the inability of the conductor to collect the fares in the time available we consider that, because of the psychological effect of non-payment from such a cause, remedial steps should be taken even if the cost of these steps is greater than the extra fares collected.

425. London Transport are already taking new measures for dealing with passengers who fraudulently avoid paying their fares on the road services. The introduction of the special services referred to in paragraph 418 would assist in this task. Consideration should also be given to the addition of other measures such as the pre-payment of fares and the posting of additional conductors at points where evasion is most likely to take place. These additional conductors should not be on a part-time basis but should be full-time regular members of London Transport's staff. The prosecution of offenders should be more widely publicised (paragraphs 171 to 178 and 226 to 228).

“ Standee ” Buses

426. “ Standee ” buses, i.e. buses which are designed to carry a large number of standing passengers, are not suitable for the greater part of the passenger traffic in London and we do not recommend their adoption. It is possible, however, that “ standee ” buses might be suitable for the special services referred to in paragraph 418 (paragraphs 179 to 181).

Off-peak Rail Services

427. During the day-time off-peak period about two thirds of the rail cars are withdrawn from London Transport's rail services and various devices are adopted including reductions in the length of trains to cut down costs when the traffic is light. There is little more that London Transport can do to cut down unprofitable working during the off-peak periods but there are still some sections of the railways which might be able to contribute further economies especially if there were closer co-ordination of London Transport's services with those of British Railways (paragraphs 188 to 194).

Peak Period Rail Services

428. London's underground railways are among the most efficient means of moving large numbers of passengers quickly to and from the central area and a number of devices are employed with the object of reducing the interval between trains in order to increase the carrying capacity of the lines in the peak period. Little more can be done without substantial capital expenditure on (a) stations, (b) railway rolling stock of improved design and (c) the actual building of new tube railways.

429. The running of trains non-stop between important stations in the central area and missing the less important ones would not, under present conditions, increase the effective carrying capacity because the bottle-neck at present does not exist in the speed of the trains but in the time taken to load and unload at the crowded stations. Staggering of working hours, referred to in paragraph 406, would give greater comfort and would relieve congestion on the tube railways much more effectively than the expenditure of millions of pounds on station improvements (paragraphs 195 to 199).

Commercial Advertising

430. Gross receipts from advertising on London Transport properties have declined between 1948 and 1953 while expenses incurred have risen. This is unsatisfactory and we understand that the British Transport Commission have the matter under review. This work is handled by the Commercial Advertisement

Division of the British Transport Commission and is outside the direct control of the London Transport Executive (paragraph 203).

Excursions and Tours and Private Hire

431. These ancillary operations of London Transport are profitable and every effort should be made to develop this business (paragraphs 204 to 206).

Exchanges With Other Operators

432. There is very little scope for London Transport to use other operators' vehicles or for other operators to use London Transport's vehicles but there may be some scope for closer co-ordination of the transport resources available where the peak periods of traffic in different undertakings occur at different times of the day (paragraphs 207 to 210).

Scheduling of Bus Services

433. There is an inflexibility in the scheduling of road services and in the drawing up of duty rosters for these services which is absent from the corresponding arrangements in other transport undertakings. Although there may be other causes for this inflexibility it may be due to some extent to the terms of the agreements between the London Transport Executive and the trade unions concerned. These agreements have a long history and we suggest that they should be re-examined in consultation with the trade unions with the object of eliminating or modifying those conditions which appear to militate against the efficient operation of the undertaking (paragraphs 221 to 223).

" One-man Operated " Buses

434. Having regard to the nature of the traffic, with passengers boarding and alighting at frequent intervals, and the system of fares, which is based upon the length of the journey, we do not consider that one-man operated buses are suitable for London Transport road services with the exception of certain country services where we understand experiments are now being made (paragraphs 224 and 225).

Fuel Oil Consumption

435. Having regard to traffic congestion and the arduous duties performed by London buses the fuel oil consumption, which averages 9·42 miles per gallon on double-deck Central Buses, is satisfactory. Credit for this is due to research by London Transport on the subject and to the high standards of driving (paragraph 229).

Fuel Oil Tax

436. About two-thirds of the cost of fuel oil and about 9 per cent. of the total working expenses of the buses and coaches is accounted for by the fuel oil tax. We are not agreed on a specific recommendation on this important matter but we consider that it should be carefully re-examined by H.M. Government (paragraphs 230 to 234).

Maintenance Costs

437. Maintenance costs are too high. Although the standards of maintenance are also high (and this is necessary—particularly on the rail services) the numbers employed on repairs and maintenance of rolling stock, both road and rail, are excessive and substantial economies could, and should, be effected by vigorous action to increase productivity per head both in the overhaul works and in the garages. The whole subject requires careful re-examination in consultation with the trade unions concerned (paragraphs 236 to 254 and 265 to 270).

Inspection of Vehicles by Ministry of Transport Officials

438. We consider that the inspections carried out on London Transport's buses and coaches by the Certifying Officers and Vehicle Examiners of the Ministry of Transport and Civil Aviation are unduly meticulous and add materially to the costs of maintenance without adding to the effectiveness of the undertaking. Trolley-buses, trams and trains are for historical reasons not subject to inspections of this kind and we consider that the requirements of the Road Traffic Act, 1930, should be waived so far as London Transport and other very responsible road passenger undertakings are concerned. If this recommendation is not accepted, we consider that the Certifying Officers and Vehicle Examiners should be permitted to exercise their discretion to a greater extent than at present so that the amount of work involved both in inspection and in carrying out the requirements of the inspection is reduced to a minimum (paragraph 244).

General Administration

439. Headquarters administration appears to be efficient and economical and although minor improvements can no doubt be introduced from time to time we do not consider that there is likely to be any substantial saving of costs under this heading (paragraphs 257 to 259 and 277).

Station Staff

440. It has been represented to us that the staff at certain stations is excessive and that the work done by ticket collectors at inward barriers appears to be inefficient. In fact the staff employed are frequently required for other duties at other times of the day and it is doubtful whether any saving can be effected. It would not be practicable to abolish the checking of tickets of incoming passengers as this would lead to an increase in non-payment of fares. We suggest, however, that steps are necessary to see that such checking of tickets not only is efficient but appears to be efficient to the passengers using these stations (paragraphs 273 to 275).

Depreciation of Railway Rolling Stock

441. Depreciation is charged on the basis of the original cost of the rolling stock much of which is many years old ; if provision were made for replacement on the basis of present-day costs the amount required would be about twice as much as the sum charged for depreciation in the accounts. So long as the revenues are insufficient to enable sums to be set aside to provide for the full cost of replacement it cannot be said that London Transport's finances are on a sound basis (paragraph 278).

Research and Development

442. Although the expenditure on research by London Transport appears to be small the work is well conducted and by co-operation with the manufacturers of equipment and the use of research associations the London Transport Executive are enabled to keep abreast of modern developments at a relatively low cost.

443. We are satisfied that for both the road services and the rail services a progressive research policy is being followed and that the results achieved are well worth the expenditure incurred (paragraphs 280 to 284).

Replacement of Older Types of Buses

444. London Transport spent very large sums in replacing older types of buses by R.T. double-deck buses and we are satisfied that their action is justified on grounds of economy and efficiency (paragraphs 287 and 288).

Abandonment of Trams

445. Having considered the evidence and the careful memoranda which were drawn up by London Transport at the time we are in no doubt that the decision to scrap the tramway system was sound. Whatever the merits of railed electric traction in certain foreign cities with wide streets, such a system is obsolete and impracticable in London. The removal of the trams, particularly from South London, has made a substantial contribution to the improvement of road traffic conditions and the oil bus has proved to be a more suitable means of road passenger transport. For London, railed electric services must be specially provided by underground railways, by the suburban lines of British Railways or by the use of other special tracks ; the narrow congested streets of London are not suitable for this form of transport (paragraphs 289 and 290).

Aldenham and Chiswick Overhaul Works

446. Reference has been made in paragraph 437 to the excessive numbers employed at these works. However, the system of overhauling engines and mechanical units at Chiswick and overhauling bus bodies at Aldenham is sound. When the re-organisation of these works is completed there should be a very substantial saving in maintenance costs.

447. The decision to employ a firm of industrial consultants to advise on the layout of Chiswick and Aldenham was sound but we recommend that in due course London Transport should have their own work study experts so that all aspects of work in the overhaul works and garages can be examined more scientifically with the object of improving productivity and reducing costs (paragraphs 291 to 294).

Replacement of Trolley-buses

448. The decision to replace trolley-buses by oil buses and to do this by stages over the whole period for which the present rolling stock is serviceable was taken only after most careful examination of all the relevant factors, including the age of electric power plants which would require replacement if the trolley-bus system were to be retained. London Transport have taken questions of economy and efficiency fully into account and in our judgment have reached the right decision in this difficult matter (paragraph 296).

Railway Rolling Stock

449. We are satisfied that in the development and improvement of railway rolling stock with greater carrying capacity and lower running costs London Transport have approached their development problems in an imaginative and sound manner. Their decision to postpone the introduction of a large number of cars in light alloy until a number of technical improvements could be made, with the object of reducing both operating costs and maintenance costs, was properly taken after due regard to the long-term aspects of economy and efficiency (paragraphs 297 to 299).

New Underground Railways

450. The then Minister of Transport and Civil Aviation announced in December, 1953, that he had agreed to a detailed investigation into the cost of construction and estimated traffic results of one of the proposed new tube railways known as Route C. This route would extend from Walthamstow to Fulham. It would run alongside the existing Piccadilly line from Finsbury Park to Kings Cross and pass through Oxford Circus and Victoria.

451. The proposed railway would have the following advantages :—

- (a) It would provide a service for the north-east sector of outer London which is badly served at present.
- (b) It would relieve overcrowding on the Piccadilly line.
- (c) It would provide much needed direct rail connections between Kings Cross, Euston, Oxford Circus, Green Park and Victoria.
- (d) It would relieve heavily loaded bus routes and traffic congestion in central London.
- (e) It would facilitate electrification of the Chingford and Enfield lines of British Railways which might otherwise result in further overloading of the Central line at Liverpool Street.

452. Although the proposed railway may not in the near future pay its way directly we are of opinion that the indirect advantages to London Transport and to London's economy as a whole are so important that this project should not be abandoned or postponed because on the basis of direct revenue or direct expenditure it appears to be unprofitable. We are particularly concerned with the very heavy expenditure on roads which will be necessary if London's tube railways are unable to cope with passenger traffic effectively. Expenditure on new tube railways may prove to be less costly than expenditure on roads and more effective in moving large numbers of passengers. Adequate tube railways may prove to be a more effective means of relieving traffic congestion than many more controversial and more expensive schemes which have been put forward (paragraphs 300 to 303).

Improvements at Underground Railway Stations

453. Complaints have been made about the congestion at some stations in central London, particularly during the evening peak period. London Transport have explained that the alterations needed to relieve this congestion at some of the more important stations in central London would cost millions of pounds and that very little extra revenue would result. In their reluctance to incur these heavy sums for the improvement of passenger comfort for a very short period of the day London Transport have shown due regard to economy and a realistic attitude. It is quite clear that if working hours were staggered the discomfort would disappear without any of this heavy expenditure being incurred, and that indeed running costs would actually be lower. We consider that before heavy expenditure is incurred on these stations, a vigorous campaign to stagger working hours as recommended in paragraph 406 should be undertaken (paragraph 304).

Central Bus Terminals and Parking Facilities

454. We do not recommend the building of large bus stations or terminals in the centre of London comparable with those which exist in the centre of many large provincial cities. Not only is the pattern of traffic quite different in London, but the London Transport railways and the suburban lines of British Railways perform much of the function of the bus services which operate from the bus terminals of these provincial cities. Consideration should, however, be given to the provision of better off-the-road parking facilities for buses at important points on the periphery of the central area with the object of improving bus loadings and reducing traffic congestion (paragraphs 305 and 306).

Inter-change Points

455. We do not regard the present arrangements for inter-change between buses and trains in central London as satisfactory. Conditions at such places as Victoria are extremely poor and unless substantial sums are spent in the

provision of adequate inter-change facilities between the different services of London Transport, and between these services and those of the British Transport Commission, London Transport cannot expect to attract more traffic away from private means of transport. In the long run reasonable comfort and facility for inter-change, though yielding no immediate return, must be an economically sound policy for London Transport and the British Transport Commission (paragraph 307).

London Transport's Bus Crews

456. The general standard of efficiency and conduct of drivers and conductors is high and although some complaints have been made to us these are relatively few in number and the indications are that the good impression made by the general standard of drivers and conductors as a whole is to some extent spoilt by the attitude of a small minority of bus crews.

457. There are complaints that buses speed at the beginning of their journey only to bunch together with other buses and to crawl towards the end of the journey in order to avoid arriving early. It is probable that the greater part of the bunching together of buses is due to traffic congestion but if the practice is in some cases deliberate it requires careful consideration so that any possible cause of grievance can be removed and the bus crews encouraged to co-operate in providing an efficient service and in attracting passengers so that the financial position of the undertaking as a whole is improved.

458. One suggestion which has been made with the object of identifying the staff more closely with the interests of London Transport is that bonus payments should be made to drivers and conductors based upon the fares collected. The suggestions which we have considered are open to serious objection. Nevertheless the importance of the matter is such that London Transport should consider carefully whether a workable scheme can be devised (paragraphs 311 to 317).

Welfare Services

459. The welfare services provided by London Transport for its staff are adequate but not extravagant. The medical services are excellent (paragraphs 321 and 322).

Maintenance of Adequate Staff

460. Some of the pre-war attractions of employment for certain grades in London Transport have disappeared and shortages of staff in those grades are already threatening to become serious. In addition, the salaries attached to appointments in the higher levels, which were reduced on the formation of the London Transport Executive in 1947, have fallen below the levels in corresponding posts in industry. Similar considerations apply to other sections of London Transport's staff.

461. Unless, in fixing remuneration, London Transport take into account the remuneration for staff at all levels in comparable employment in industry it will be impossible to attract and retain the right men and women.

462. We have been impressed by the loyalty, ability and public spirit shown by the present staff. If there is a decline from the present standards the long-term effect upon London Transport will be serious. If the present policy, which in our judgment produces a false economy, is maintained, there will be a chronic inability to get staff of the right quality and a fall both qualitatively and quantitatively in the standard of service given by London Transport, which in

turn will encourage the use of other forms of transport with its attendant consequences for London Transport in the shape of diminished revenue, increased traffic congestion and difficulty of operation.

463. The undertaking must be made to pay its way and at the present time it is not making an adequate contribution towards the central services and capital charges of the British Transport Commission. Any upward adjustment of wages and salaries must result in increasing the deficit still further and in the absence of corrective action this deficit can only be made good by increasing fares or by contracting services or by a combination of both. This vicious circle of increased remuneration followed automatically by a corresponding increase in fares could be broken if vigorous action is taken to put into force the recommendations made in this Report. It is impossible to say whether, if these recommendations are adopted, the whole gap can be covered without any increase in fares or contraction of services. One object of the recommendations is to try to avoid this automatic need to choose between increased fares or reduced services every time there is an adjustment in this or any other item of cost. We believe that if action on the lines proposed in this Report is taken then in the long run much can be done to maintain a high standard of public service at a relatively low cost. The benefits can be passed on to the travelling public after solvency has been achieved (paragraphs 323 to 328).

Public Relations

464. We are satisfied that in examining complaints London Transport take care to ascertain the facts and to give the complainant a detailed explanation if it is not possible to remedy the matter about which the complaint is made.

465. The problems which face the London Transport Executive are often insufficiently understood by the general public and consideration should be given to the possibility of devoting more attention to explanations of a general character, particularly where the Executive is the subject of misguided criticism (paragraphs 330 to 333).

Transport Users' Consultative Committee for London

466. This Committee serves a valuable purpose and its existence needs better publicity (paragraph 334).

467. As the Committee is intended to be independent we consider that neither the British Transport Commission nor the London Transport Executive should be represented on the Committee itself. We also consider that the Secretary of the Committee should be appointed directly by the Minister of Transport and Civil Aviation and that this function should not be performed, as it is at present, by an officer of the London Transport Executive. It is important that there should be not only impartiality but the appearance of impartiality (paragraphs 335 and 336).

468. It has been suggested that the Committee covers too large an area and that smaller committees or sub-committees should be set up for each area. We do not recommend the adoption of this proposal but suggest that the committee should be continued in its present form for several years before its reconstitution is considered (paragraph 337).

Higher Organisation of the London Transport Executive

469. We recommend that there should be not less than two part-time Members of the Executive with experience in fields other than transport (paragraph 340).

470. The organisation of the higher management is generally sound but the Member responsible for finance should not be in the dual position of advocating a project which he has the duty of judging critically from a broad financial angle (paragraphs 341, 342 and 344).

471. The allocation of duties of the Chief Officers is on a purely functional basis and there is no General Manager for each of the separate services (Central Buses, Country Buses, Coaches, Trolley-buses and Railways). Co-ordination of functions (e.g., operating, maintenance and power supply) takes place only at the level of the Executive itself. A re-organisation which would permit of co-ordination of all the functions related to the separate services at a level lower than that of the Executive should be considered. This would involve the appointment of General Managers for each of the separate services (paragraphs 345 to 348).

472. Below the central organisation there are for the road services six Divisions and the Divisions are split up into 35 Districts each of which controls a group of garages. Comparatively little responsibility is placed in the hands of the superintendents in charge of the Divisions and Districts and consideration should be given to the decentralisation to these offices of some of the work at present performed at Headquarters (paragraph 349).

Co-ordination of Services of London Transport and of British Railways

473. Complaints have been made that the co-ordination between the London Transport Executive and the British Transport Commission is inadequate and that insufficient use is made of the suburban railway lines operated by the Commission. In some instances the lines concerned are heavily loaded with freight traffic which it would be uneconomical to sacrifice for passenger traffic (paragraphs 350 and 351).

474. Another factor which militates against greater use of these lines is the difficulty of operating intensive suburban services with steam trains. We consider that the British Transport Commission should press forward with plans for electrification and other improvements of the suburban lines which would relieve the peak-hour load on London Transport's road and rail services (paragraph 352).

475. To some extent the proper use of the suburban services of British Railways is affected by fare anomalies which require investigation (paragraphs 353 and 354).

476. The travelling public will never be convinced that there is adequate co-ordination between the services provided by British Railways and those provided by London Transport unless considerable improvements are made in the facilities for changing between one service and another as proposed in paragraph 455 above (paragraph 355).

477. Although there is informal discussion of operational points of detail at relatively low levels there does not appear to be very close or continuous co-ordination of policy at the highest levels between the British Transport Commission and the London Transport Executive (paragraph 356).

Inter-availability of Tickets

478. Although there are considerable difficulties in making tickets freely available between the different services provided by the London Transport Executive and the services provided by the British Transport Commission consideration should be given to a broadening of the present inter-availability arrangements and to the removal of some of the worst anomalies (paragraphs 357 to 359).

Relationship between the London Transport Executive and the British Transport Commission

479. The present statutory position in which the London Transport Executive is the only Executive left under the British Transport Commission, the other Executives having been abolished and their functions taken over by the British Transport Commission, is unsatisfactory. The British Transport Commission is left with a general control over the London Transport Executive, with ultimate financial responsibility, but with no power of appointing or removing members of the London Transport Executive and no direct control over the operations. In particular the state of affairs in which the financial responsibility is left with the British Transport Commission and the operational responsibility with the London Transport Executive is unsound.

480. We consider that either (a) the London Transport Executive should be reconstituted as an entirely separate body responsible directly to the Minister or (b) the London Transport Executive as a statutory body should be abolished and its functions vested in the British Transport Commission, who would have full control over the Board of Management which would no doubt be appointed to replace the London Transport Executive and which in practice would have much the same membership. We recognise that a decision concerning this matter may involve factors other than economy and efficiency and we therefore make no recommendation as to which of these courses should be adopted (paragraphs 360 to 370).

Local Authorities and London Transport

481. Whatever steps are taken on the question of the relationship between the British Transport Commission and the London Transport Executive we do not recommend the appointment to the London Transport Executive, or to any successor body, of local authority representatives (paragraphs 371 to 373).

Safety

482. The standards of passenger safety are very high and we do not recommend changes which have been proposed in respect of the operation of the underground trains (paragraphs 375 to 378).

* * * * *

483. Finally, we wish to record our warmest thanks to our Secretary, Mr. B. E. Bellamy, and our Assistant Secretary, Mrs. E. Pollack. Their skill, resourcefulness and energy have been equal to all the demands we have made upon them and have played a large part in enabling us to produce this Report on a complicated subject within a reasonable period of time.

S. P. CHAMBERS (*Chairman*)

D. E. BELL

BETTY CORN

P. T. HEADY

F. W. LEGGETT

V. MISHCON

T. B. ROBSON

G. L. SCHWARTZ

B. E. BELLAMY (*Secretary*)

EDITH POLLACK (*Assistant Secretary*)

January, 1955.

APPENDIX I(A)

List of Bodies which Submitted Written Evidence to the Committee

Amersham Rural District Council.
Association of Municipal Corporations.
Bedfordshire County Council.
Benfleet and District Railway Travellers' Association.
Benfleet Urban District Council.
British Electrical Development Association.
British Hotels and Restaurants Association.
Canvey Island Urban District Council.
*Chigwell Urban District Council.
Chingford Borough Council.
Edgware and District Chamber of Commerce.
Edgware Ratepayers' Association.
Engineering and Allied Employers London and District Association.
Essex County Council.
Federation of Ratepayers' and Kindred Associations of Middlesex.
Federation of Residents' Associations in the County of Kent.
Finchley Borough Council.
Hornchurch Urban District Council.
Ilford Borough Council.
Kent County Council.
*Leyton Borough Council.
London and Home Counties Electric Traction Society.
London Chamber of Commerce.
London County Council.
London Passengers' Association.
Malden and Coombe Town Planning Group.
Manufacturers of Trolley-bus Electrical Equipment.
Metropolitan Boroughs' Standing Joint Committee.
*National Chamber of Trade (Greater London Area Council).
North London Travelling Facilities Campaign.
Passenger Vehicle Operators Association.
Penge Urban District Council.
Railway Development Association.
Regional Transport Development Association.
Romford Borough Council.
Rural District Councils Association.
*St. Marylebone Chamber of Commerce.
St. Pancras Chamber of Commerce.
Surrey County Council.
Toc H (Balham Branch).
Thurrock Ratepayers' and Residents' Association.
Thurrock Urban District Council.
*Transport Users' Consultative Committee for London.
Urban District Councils Association.
Urban Transport Research Group.
Waltham Holy Cross Urban District Council.
*Wanstead and Woodford Borough Council.
Watford Rural District Council.

West Lewisham Labour Party.
Westminster Chamber of Commerce.

Notes :

1. * denotes bodies who gave further evidence orally.
2. The County Councils mentioned above also submitted written evidence on behalf of their district councils.
3. The oral evidence concerning the Transport Users' Consultative Committee for London was given by the Chairman, Deputy Chairman and Secretary of that Committee in a personal capacity.
4. Written representations were received also from 130 individual members of the public.

APPENDIX I(B)

List of Other Bodies Invited to Give Evidence

Association of British Chambers of Commerce.
Berkshire County Council.
British Employers' Confederation.
Buckinghamshire County Council.
East Sussex County Council.
Federation of British Industries.
Hertfordshire County Council.
Mansion House Association On Transport.
Middlesex County Council.
Trades Union Congress.
West Sussex County Council.

APPENDIX I(C)

**Correspondence with the Transport and
General Workers' Union**

27th August, 1954.

Dear Mr. Deakin,

The Committee of Inquiry into London Transport have received a number of representations from public bodies and from individual members of the public and have obtained a considerable volume of information from the London Transport Executive and the British Transport Commission. The Committee feel, however, that on certain points concerning the operation of the road services of London Transport they would be greatly helped before coming to any conclusions if the views of the representatives of the operating staffs were known.

As Chairman of the Committee, therefore, I have been asked to enquire whether the views of the Union can be given on the following questions :—

- (1) There is a shortage of crews for buses at the present time. To what does the Union attribute this? What measures would the Union suggest to remedy it?
- (2) Are the amenities (canteen arrangements, medical services, recreational facilities, etc.) for the road operating staff considered to be reasonably adequate?
- (3) Are the arrangements for joint consultation adequate and effective? If they are not has the Union any suggestions to make?
- (4) A number of representations have been made to us by members of the travelling public regarding—

(a) bunching and crawling of buses ;

(b) ignoring request stops and failure to exercise reasonable discretion to allow passengers alighting from trains to board buses or to wait for intending passengers who are within a few yards of a bus stop.

Have the Union any views as to the existence and extent of these practices and what remedies might be adopted ?

(5) Are there any representations in regard to any other matters which the Union would wish to put forward for consideration by the Committee ?

The Committee regret that the Union apparently does not wish to give oral evidence of a general character to the Committee, but trust that the Union will deal with these specific questions in writing.

It will be appreciated that this Committee is in no way concerned with political issues such as Nationalisation, but only with the public benefit which flows from the efficiency and economy of the undertaking.

Yours sincerely,
(Sgd.) S. P. CHAMBERS.

The Rt. Hon. Arthur Deakin, C.H., C.B.E.,
Transport & General Workers' Union.

TRANSPORT AND GENERAL WORKERS' UNION,
Transport House,
Smith Square,
London, S.W.1.
1st September, 1954.

Dear Mr. Chambers,

I am in receipt of your letter of the 27th ultimo and in reply have to say that my Union would not wish to put forward an opinion on the matters referred to in your communication.

When the Committee of Inquiry was constituted it was made perfectly clear that we did not regard the inquiry as being in any way related to matters with which we can deal in the ordinary way of negotiation.

The questions put forward in your letter can be made the subject of effective representation through the usual channels. Therefore, we would not wish to create overlapping.

Yours sincerely,
(Sgd.) A. DEAKIN,
General Secretary.

S. P. Chambers, Esq.

Loadings of Some London Transport Bus Services

APPENDIX VI

The attached sheets give details of the average departure loads of all buses on routes 11, 73, 77/77A and 88 between 8.0 a.m. and 9.0 a.m., between 10.0 a.m. and 4.0 p.m., and between 5.0 p.m. and 6.0 p.m., as recorded by London Transport during the period which began on 1st May, 1954. Similar information relating to some 20 other bus routes passing through Central London and to a number of other routes operated by central buses, trolley-buses, country buses and Green Line coaches will be found in Part II of the Report.

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

8.0 a.m. to 9.0 a.m.

Route 11			To <i>Shepherds Bush</i>	To <i>Liverpool St.</i>
Brook Green Hotel, Brook Green Road ...	...	...	9.0	14.0
Hammersmith Bdwy., Queen Caroline Street ...	...	...	7.6	15.5
Greyhound, Fulham Palace Road ...	...	...	26.8	18.6
Salisbury Hotel, Dawes Road ...	...	...	19.2	30.7
Fulham Bdwy. Stn. in Harwood Road ...	...	...	14.6	33.2
Worlds End, Chelsea ...	...	...	11.5	50.5
Chelsea Town Hall ...	...	...	11.4	54.0
Sloane Square in Kings Road ...	...	...	13.5	33.4
Victoria Stn., Buckingham Palace Road and Grosvenor Gardens	...	...	19.8	39.2
Army & Navy Stores in Victoria Street ...	...	...	14.2	35.9
Parliament Street, Parliament Square ...	...	...	23.6	31.1
Charing Cross in Duncannon Street ...	...	...	31.4	28.9
Strand, Wellington Street ...	...	...	22.4	24.4
Bank in Queen Victoria Street ...	...	...	46.8	6.9
(end of route)				

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

10.0 a.m. to 4.0 p.m.

Route 11			To <i>Shepherds Bush</i>	To <i>Liverpool St.</i>
Brook Green Hotel, Brook Green Road ...	...	...	12.4	9.9
Hammersmith Bdwy., Queen Caroline Street ...	...	...	5.9	15.9
Greyhound, Fulham Palace Road ...	...	...	16.0	16.5
Salisbury Hotel, Dawes Road ...	...	...	19.6	16.0
Fulham Bdwy. Stn. in Harwood Road ...	...	...	17.5	13.3
Worlds End, Chelsea ...	...	...	15.1	20.1
Chelsea Town Hall ...	...	...	20.6	20.4
Sloane Square in Kings Road ...	...	...	18.7	20.4
Victoria Stn., Buckingham Palace Road and Grosvenor Gardens	...	...	24.3	24.9
Army & Navy Stores in Victoria Street ...	...	...	30.5	32.8
Parliament Street, Parliament Square ...	...	...	32.8	34.3
Charing Cross in Duncannon Street ...	...	...	31.2	25.1
Strand, Woolworths and Aldwych ...	...	...	28.2	22.9
Bank in Queen Victoria Street ...	...	...	23.6	15.2
(end of route)				

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

5.0 p.m. to 6.0 p.m.

Route 11	To	
	<i>Shepherds Bush</i>	<i>Liverpool St.</i>
Brook Green Hotel, Brook Green Road ...	19.0	28.4
Hammersmith Bdwy., Queen Caroline Street ...	10.6	49.9
Greyhound, Fulham Palace Road ...	30.4	43.5
Salisbury Hotel, Dawes Road ...	39.7	25.9
Fulham Bdwy. Stn. in Harwood Road ...	48.9	22.1
Worlds End, Chelsea... ..	45.8	27.4
Chelsea Town Hall	53.3	25.9
Sloane Square in Kings Road	48.1	27.1
Victoria Stn., Buckingham Palace Road and Grosvenor Gardens	51.2	24.0
Army & Navy Stores in Victoria Street ...	54.3	27.3
Parliament Street, Parliament Square ...	57.2	34.3
Charing Cross in Duncannon Street ...	54.5	24.1
Strand, Woolworths and Aldwych ...	59.4	39.3
Bank in Queen Victoria Street ...	43.0	44.8
(end of route)		

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

8.0 a.m. to 9.0 a.m.

Route 73	To	
	<i>Stoke Newington</i>	<i>Richmond</i>
Black Horse, Sheen	13.1	4.5
Upper Richmond Road, Sheen Lane ...	36.5	1.7
Railway Hotel, Barnes Common	47.7	2.5
Red Lion, Barnes	52.0	4.8
Boileau Arms, Castelnau	56.5	3.3
Hammersmith Bridge Road, Hammersmith Bdwy.	47.9	4.4
Hammersmith Road, Hammersmith Bdwy. ...	48.3	1.7
Addison Bridge	50.0	12.6
Kensington High Street Stn.	43.6	15.1
Knightsbridge Stn., Sloane Street ...	38.2	13.9
Hyde Park Corner	44.7	9.9
Marble Arch, Park Lane	35.5	9.5
Selfridges, Oxford Street	28.4	7.7
Oxford Circus, Oxford Street	14.14	19.5
St. Giles Circus, Tottenham Court Road ...	7.5	45.8
Warren Street Stn.	6.0	58.0
Kings Cross Stn.	17.6	60.0
Angel, Islington, in Upper Street ...	11.3	56.5
Essex Road at New North Road ...	8.2	59.6
Albion Road, Newington Green ...	10.5	53.7
Church Street, Stoke Newington ...	—	36.6
(end of route)		

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

10.0 a.m. to 4.0 p.m.

Route 73	To	
	Stoke Newington	Richmond
Black Horse, Sheen	9.9	10.8
Upper Richmond Road, Sheen Lane	15.5	12.2
Railway Hotel, Barnes Common	20.0	16.4
Red Lion, Barnes	21.6	16.1
Boileau Arms, Castelnau	24.4	16.8
Hammersmith Bridge Road, Hammersmith Bdwy.	21.1	16.7
Hammersmith Road, Hammersmith Bdwy.	11.3	7.3
Addison Bridge	14.3	14.8
Kensington High Street Stn.	19.7	15.3
Knightsbridge Stn., Sloane Street	30.9	25.9
Hyde Park Corner	33.0	29.8
Marble Arch, Park Lane	31.0	31.8
Selfridges, Oxford Street	26.7	29.4
Oxford Circus, Oxford Street	27.0	28.6
St. Giles Circus, Tottenham Court Road	23.1	26.9
Warren Street Stn.	13.4	23.3
Kings Cross Stn.	18.3	19.3
Angel, Islington, Upper Street	16.0	18.0
Essex Road at New North Road	13.0	16.7
Albion Road, Newington Green	10.7	14.4
Church Street, Stoke Newington	—	12.6
(end of route)		

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

5.0 p.m. to 6.0 p.m.

Route 73	To	
	Stoke Newington	Richmond
Black Horse, Sheen	7.7	12.1
Upper Richmond Road, Sheen Lane	8.0	12.9
Railway Hotel, Barnes Common	9.4	29.0
Red Lion, Barnes	11.1	32.0
Boileau Arms, Castelnau	11.2	44.0
Hammersmith Bridge Road, Hammersmith Bdwy.	6.2	48.1
Hammersmith Road, Hammersmith Bdwy.	11.5	37.5
Addison Bridge	17.8	45.8
Kensington High Street Stn.	19.5	47.6
Knightsbridge Stn., Sloane Street	22.5	49.6
Hyde Park Corner	22.7	50.2
Marble Arch, Park Lane	21.3	49.1
Selfridges, Oxford Street	33.2	48.9
Oxford Circus, Oxford Street	51.9	38.2
St. Giles Circus, Tottenham Court Road	56.9	20.5
Kings Cross Stn.	53.2	18.4
Angel, Islington, in Upper Street	52.9	22.6
Essex Road, New North Road	47.3	17.5
Albion Road, Newington Green	37.4	17.4
(end of route)		

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

8.0 a.m. to 9.0 a.m.

Route 77/77A		To <i>Kings Cross</i>	To <i>Tooting and Raynes Park</i>
St. Pancras Church in Upper Woburn Place	77 & 77A	4.5	23.6
Southampton Row, Russell Square...	„	13.7	28.3
Holborn Underground Stn.	„	18.8	29.3
Stoll Theatre, Kingsway	„	—	25.7
Strand, Aldwych	„	38.4	22.4
Charing Cross in Duncannon Street in Strand	„	44.1	33.1
Charing Cross in Whitehall	„	—	33.0
Parliament Street at Parliament Square	„	41.1	31.4
Thames House, Millbank	„	48.1	15.9
Albert Embankment at Lambeth Bridge	„	53.2	12.0
Vauxhall Stn.	„	54.4	9.7
Wandsworth Road Stn.	„	54.8	10.8
Clapham Junction in St. Johns Hill...	77A	31.3	26.3
Clapham Junction in St. Johns Road	77	32.9	25.8
East Hill at Marcilly Road	77A	45.1	26.6
Spread Eagle, Wandsworth High Street	„	35.1	22.3
Park Tavern, Merton Road	„	45.8	18.4
The Woodman, Wimbledon Park ...	„	25.9	25.7
Earlsfield Road at Heathfield Road...	77	46.8	17.4
Earlsfield Stn., Earlsfield Road ...	„	27.6	18.3
Tooting Broadway, Mitcham Road	„	14.6	9.0
(end of route)			

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

10.0 a.m. to 4.0 p.m.

		To Kings Cross	To Tooting and Raynes Park
Route 77/77A			
St. Pancras Church in Upper Woburn Place	77 & 77A	4.7	8.4
Southampton Row, Russell Square...	"	11.9	14.5
Holborn Underground Stn. ...	"	13.9	21.1
Stoll Theatre, Kingsway ...	"	—	21.8
Strand, Aldwych ...	"	17.9	21.3
Charing Cross in Duncannon Street in Strand	"	17.3	19.8
Charing Cross in Whitehall ...	"	—	24.5
Parliament Street at Parliament Square	"	18.5	20.9
Thames House, Millbank ...	"	17.9	14.1
Albert Embankment at Lambeth Bridge	"	10.9	13.5
Vauxhall Stn. ...	"	9.2	13.0
Wandsworth Road Stn. ...	"	11.9	12.7
Clapham Junction in St. Johns Hill...	77A	11.5	14.8
Clapham Junction in St. Johns Road	77	11.6	12.2
East Hill at Marcilly Road ...	77A	13.2	11.6
Spread Eagle, Wandsworth High Street	"	10.8	10.4
Park Tavern, Merton Road ...	"	15.0	11.8
The Woodman, Wimbledon Park ...	"	8.8	13.9
Earlsfield Road at Heathfield Road...	77	11.0	11.1
Earlsfield Stn., Earlsfield Road ...	"	8.4	7.4
Tooting Bdwy., Mitcham Road	"	8.3	4.3
(end of route)			

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

5.0 p.m. to 6.0 p.m.

		To Kings Cross	To Tooting and Raynes Park
Route 77/77A			
St. Pancras Church in Upper Woburn Place	77 & 77A	15.5	14.3
Southampton Row, Russell Square...	"	29.7	28.6
Holborn Underground Stn. ...	"	30.9	50.8
Stoll Theatre, Kingsway ...	"	—	55.8
Strand, Aldwych ...	"	32.2	55.8
Charing Cross in Duncannon Street in Strand	"	25.2	53.9
Charing Cross in Whitehall ...	"	—	46.2
Parliament Street at Parliament Square	"	37.5	52.9
Thames House, Millbank ...	"	47.8	52.7
Albert Embankment at Lambeth Bridge	"	19.8	55.5
Vauxhall Stn. ...	"	11.0	54.3
Clapham Junction in St. Johns Hill...	77A	31.6	52.0
Clapham Junction in St. Johns Road	77	20.4	49.0
East Hill at Marcilly Road ...	77A	35.1	42.0
Spread Eagle, Wandsworth High Street	"	28.0	49.1
Park Tavern, Merton Road ...	"	21.7	41.9
The Woodman, Wimbledon Park ...	"	19.4	27.8
Earlsfield Road at Heathfield Road...	77	10.5	39.2
Earlsfield Stn., Earlsfield Road ...	"	16.5	24.6
Tooting Bdwy., Mitcham Road	"	—	7.2
(end of route)			

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

8.0 a.m. to 9.0 a.m.

Route 88					To Acton Green	To St. Helier
Bishopsford Road at Middleton Road	...	...	...	...	17.7	6.8
Fair Green, Mitcham	...	...	...	...	30.5	10.9
Tooting Stn. (S.R.)	...	...	...	...	48.5	15.5
Tooting Bdwy. in Mitcham Road	...	...	...	...	38.3	11.3
Tooting Bdwy., Balham side	...	...	...	...	28.4	11.3
Tooting Bec Stn.	...	...	...	...	31.4	18.3
Balham Stn.	...	...	...	...	37.2	15.3
Clapham South Stn.	...	...	...	...	41.0	15.0
Clapham Common Underground Stn.	...	...	...	...	37.7	11.5
Clapham North Stn.	...	...	...	...	46.3	4.5
Stockwell Stn. in Clapham Road	...	...	...	...	49.6	3.5
Vauxhall Stn. in Wandsworth Road	...	...	...	...	52.6	3.9
Marsham Street at Page Street	...	...	...	...	51.1	7.9
Parliament Street at Parliament Square	...	...	...	...	43.8	17.1
Charing Cross in Whitehall	...	...	...	...	—	15.3
Trafalgar Square	...	...	...	...	38.4	9.6
Piccadilly Circus, Regent Street	...	...	...	...	24.4	6.2
Oxford Circus in Oxford Street	...	...	...	...	7.8	—
Selfridges, Oxford Street	...	...	...	...	2.5	33.2
Marble Arch, Bayswater Road	...	...	...	...	4.1	51.9
Lancaster Gate Stn.	...	...	...	...	4.3	51.4
Queensway Stn.	...	...	...	...	5.7	50.7
Coronet Theatre, Notting Hill Gate	...	...	...	...	13.6	42.8
Shepherds Bush C.L. Stn.	...	...	...	...	11.2	47.9
Seven Stars, Goldhawk Road	...	...	...	...	6.2	52.5
Tabard Hotel in Bath Road...	...	...	...	...	5.6	29.9

(end of route)

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

10 a.m. to 4.0 p.m.

Route 88						To Acton Green	To St. Helier
Fair Green, Mitcham	...	...	...	...	...	4.9	1.5
Tooting Stn. (S.R.)	...	...	...	...	...	10.0	7.3
Tooting Bdwy. in Mitcham Road	...	...	...	...	...	13.9	11.8
Tooting Bdwy., Balham side	...	...	...	...	...	17.0	11.7
Tooting Bec Stn.	...	...	...	...	...	18.3	16.4
Balham Stn.	...	...	...	...	...	15.4	14.9
Clapham South Stn.	...	...	...	...	...	14.7	13.6
Clapham Common Stn.	...	...	...	...	...	5.2	12.1
Clapham North Stn.	...	...	...	...	...	6.9	7.2
Stockwell Stn. in Clapham Road	...	...	...	...	...	7.8	8.2
Vauxhall Stn. in Wandsworth Road	...	...	...	...	...	8.7	11.3
Marsham Street at Page Street	...	...	...	...	...	12.4	15.6
Parliament Street at Parliament Square	...	...	...	...	...	19.3	20.7
Charing Cross in Whitehall	...	...	...	...	...	—	21.3
Trafalgar Square	...	...	...	...	...	17.6	19.8
Piccadilly Circus, Regent Street	...	...	...	...	...	13.5	14.3
Oxford Circus in Oxford Street	...	...	...	...	...	12.5	15.8
Selfridges, Oxford Street	...	...	...	...	...	13.4	19.3
Marble Arch, Bayswater Road	...	...	...	...	...	16.9	21.7
Lancaster Gate Stn.	...	...	...	...	...	16.0	23.9
Queensway Stn.	...	...	...	...	...	13.1	20.3
Coronet Theatre, Notting Hill Gate	...	...	...	...	...	14.7	14.9
Shepherds Bush C.L. Stn.	...	...	...	...	...	10.5	13.5
Seven Stars, Goldhawk Road	...	...	...	...	...	8.1	12.2
Tabard Hotel, Bath Road	...	...	...	...	...	3.8	7.0
(end of route)							

AVERAGE DEPARTURE LOADS

MONDAY-FRIDAY

5.0 p.m. to 6.0 p.m.

Route 88

						<i>To Acton Green</i>	<i>To St. Helier</i>
Bishopsford Road at Middleton Road	...	...	...	...	...	5.0	8.8
Fair Green, Mitcham	...	...	...	...	...	23.2	39.6
Tooting Stn. (S.R.)	...	...	...	...	...	31.4	37.6
Tooting Bdwy. in Mitcham Road	...	...	...	...	...	23.1	34.7
Tooting Bdwy., Balham side	...	...	...	...	...	27.0	26.0
Tooting Bec Stn.	...	...	...	...	...	25.4	34.6
Balham Stn.	...	...	...	...	...	19.2	35.9
Clapham South Stn.	...	...	...	...	...	17.9	43.1
Clapham Common Underground Stn.	...	...	...	...	...	5.5	49.3
Clapham North Stn.	...	...	...	...	...	6.8	27.6
Stockwell Stn. in Clapham Road	...	...	...	...	...	8.0	35.6
Vauxhall Stn. in Wandsworth Road	...	...	...	...	...	8.0	46.9
Marsham Street at Page Street	...	...	...	...	...	20.4	51.8
Parliament Street at Parliament Square	...	...	...	...	...	29.8	49.5
Charing Cross in Whitehall	...	...	...	...	...	—	45.0
Trafalgar Square	...	...	...	...	...	18.6	49.0
Piccadilly Circus, Regent Street	...	...	...	...	...	14.6	43.1
Oxford Circus in Oxford Street	...	...	...	...	...	32.1	34.5
Selfridges, Oxford Street	...	...	...	...	...	51.6	21.9
Marble Arch, Bayswater Road	...	...	...	...	...	52.0	15.8
Lancaster Gate Stn.	...	...	...	...	...	46.3	18.0
Queensway Stn.	...	...	...	...	...	37.5	21.6
Coronet Theatre, Notting Hill Gate	...	...	...	...	...	45.6	18.1
Shepherds Bush C.L. Stn.	...	...	...	...	...	41.8	19.8
Seven Stars, Goldhawk Road	...	...	...	...	...	25.8	25.3
Tabard Hotel in Bath Road...	...	...	...	...	...	11.3	18.9

(end of route)

APPENDIX IX

Conditions of Service of Bus Crews

SOME DIFFERENCES BETWEEN THE LONDON TRANSPORT AGREEMENT
AND THE NATIONAL AGREEMENT FOR MUNICIPAL TRANSPORT UNDERTAKINGS

Scheduled Hours of Work

1. The agreement between the trade union concerned and the London Transport Executive provides for a guaranteed week of 44 hours and a guaranteed day of not less than 7 hours 20 minutes ; duties may be scheduled up to a maximum of 46 hours and 7 hours 40 minutes respectively, but the average scheduled week for the whole fleet must not exceed 41 hours 15 minutes. The national agreement between the Union and the municipal transport undertakings provides for a normal working week of 44 hours (or a guaranteed fortnight of 88 hours) and a guaranteed day of not less than 7 hours, with no stated maximum.

Overtime

2. Both in London and elsewhere the daily hours of a driver are limited, for reasons of safety, by the provisions of the Road Traffic Act, 1930 and the Road and Rail Traffic Act, 1933. For drivers and conductors, any overtime in excess of 7 hours 40 minutes daily or 46 hours weekly is "unscheduled" (i.e. voluntary) under the agreement with London Transport ; the national agreement does not distinguish in the same way between scheduled and unscheduled overtime. In London overtime is paid on a daily basis, i.e. it is paid whenever more than 7 hours 20 minutes duty is worked in a day ; the national agreement provides for payment of overtime to be aggregated on a weekly basis.

Spreadover Duties

3. In London the period from the beginning of the first spell of duty to the end of the last spell of duty on the same day ("spreadover") must not exceed 12 hours on weekdays or 10 hours on Sundays. It is also provided, in the London Transport agreement, that not more than 20 per cent. of all the duties worked on weekdays shall involve a spreadover period exceeding 8 hours 20 minutes and that not more than 10 per cent. of all the duties shall exceed a spreadover of 9½ hours. In the national agreement it is provided that spreadover duties shall be reduced to the lowest possible minimum, with regard both to their length and to their number, but specific limits are not stated.

Spreadover Payments

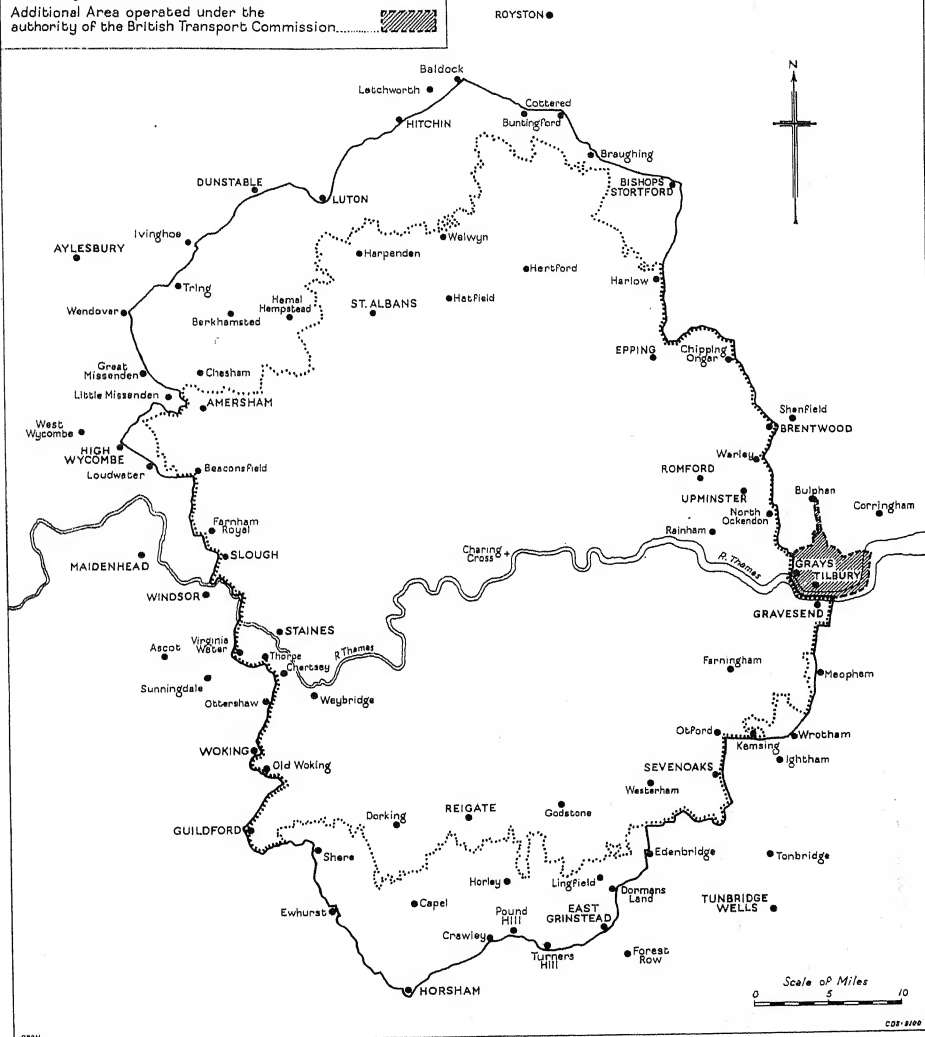
4. In London, if the period from the beginning of the first spell of duty to the end of the last spell of duty exceeds eight hours (i.e. 7 hours 20 minutes plus a meal break of 40 minutes) an allowance at the full standard rate of wages is paid for the period in excess of eight hours. Under the national agreement these spreadover allowances are not paid unless the period from the beginning of the first spell to the end of the last spell exceeds 9½ hours and such allowances take the form of penalty payments at the following rates :—

Inclusive Spreadover Time						Penalty		
h.	m.	—	h.	m.				
9	30	—	10	29	...	...	...	$\frac{1}{4}$ hour
10	30	—	10	59	...	...	...	$\frac{1}{2}$ hour
11	00	—	11	29	...	...	...	$\frac{3}{4}$ hour

and so on, rising by quarter-hours for each half-hourly step.

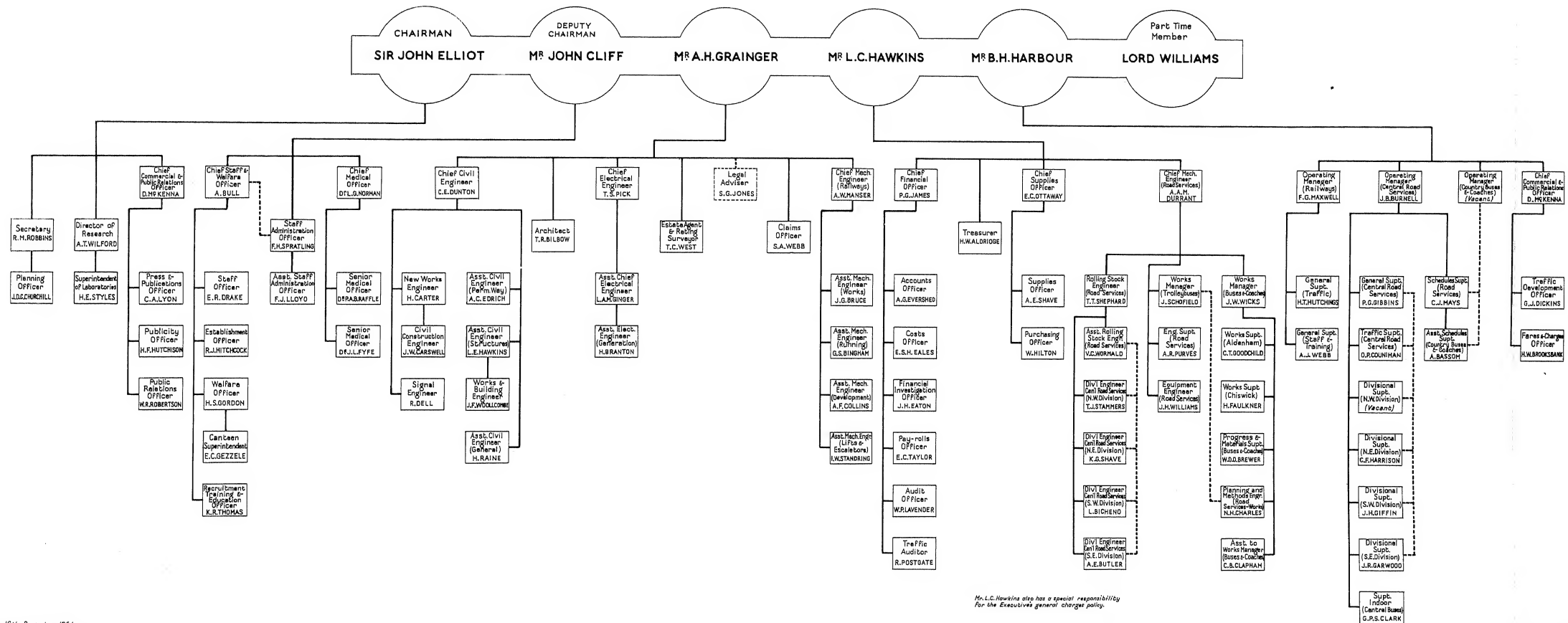
It should be noted that, as explained in paragraph 221 of the Report, the municipal transport undertakings in Glasgow, Liverpool and certain other cities have local agreements which are more favourable to the employees in regard to some of these matters than the national agreement to which this Appendix relates, but are less favourable to the employees than the agreement with London Transport.

Boundary of London Passenger Transport Area.....
 Boundary of London Special Area.....
 Additional Area operated under the
 authority of the British Transport Commission.....



LONDON TRANSPORT EXECUTIVE

APPENDIX III



16th December, 1964.

Financial Results of the London Transport Executive

	Buses and Coaches						Trolley-Buses						Trams					Railways						All Services						
	1948 £	1949 £	1950 £	1951 £	1952 £	1953 £	1948 £	1949 £	1950 £	1951 £	1952 £	1953 £	1948 £	1949 £	1950 £	1951 £	1952 £	1948 £	1949 £	1950 £	1951 £	1952 £	1953 £	1948 £	1949 £	1950 £	1951 £	1952 £	1953 £	
REVENUE																														
Passengers and miscellaneous ...	31,580,964	31,289,863	30,788,755	33,756,288	39,238,549	40,882,281	8,592,729	8,361,557	8,169,350	8,279,495	9,138,183	9,227,194	2,653,994	2,555,154	2,359,984	1,353,940	320,300	15,084,841	14,822,855	15,032,594	16,522,027	18,399,959	18,743,945	57,912,528	57,029,429	56,350,683	59,911,750	67,097,191	68,853,420	
Advertising (net) ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,302,644	1,291,645	1,187,892	1,267,219	1,080,490	1,135,233
Letting of sites, shops, etc. (net) ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	188,732	223,541	221,737	215,109	210,432	222,391
TOTAL REVENUE ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	59,403,904	58,544,615	57,760,312	61,394,078	68,388,113	70,211,044
EXPENDITURE																														
Vehicle or Train Operating Costs																														
Wages, clothing, national insurance of drivers and conductors or trainmen...	12,251,479	12,524,307	12,580,381	14,665,393	16,302,127	17,008,174	3,135,663	3,157,814	3,140,028	3,424,614	3,597,726	3,698,844	1,454,512	1,439,231	1,398,611	931,636	223,362	1,339,347	1,423,519	1,416,390	1,610,401	1,691,164	1,754,711	18,181,001	18,544,871	18,535,410	20,632,044	21,814,379	22,461,729	
Petrol and fuel oil ...	2,908,511	2,561,990	3,446,115	4,839,305	6,273,853	6,513,366	1,077,168	1,103,205	1,113,214	1,182,255	1,280,348	1,384,507	487,378	459,740	448,371	299,105	75,836	2,850,648	2,920,437	3,002,131	3,309,949	3,529,245	3,701,014	2,908,511	2,561,990	3,446,115	4,839,305	6,273,853	6,513,366	
Electric current ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,415,194	4,483,382	4,563,716	4,791,309	4,885,429	5,085,521
Tyres ...	570,496	545,516	565,660	751,902	950,984	864,163	213,470	188,357	169,577	209,916	229,687	182,143	—	—	—	—	—	—	—	—	—	—	—	783,966	733,873	735,223	961,818	1,180,671	1,046,306	
Lubricating ...	216,512	183,310	174,197	222,946	225,229	189,762	20,544	15,460	14,439	14,407	12,675	11,229	27,168	20,151	19,289	9,664	1,740	—	—	—	—	—	—	264,224	218,921	207,925	247,017	239,644	200,991	
Vehicle cleaning and other depot expenses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	434,492	434,492	412,246	450,510	479,442	514,243
Miscellaneous expenses ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	80,758	92,810	110,327	98,463	90,964	98,272	80,758	92,810	110,327	98,463	90,964	98,272
Maintenance and Depreciation of Rolling Stock	15,946,998	15,815,123	16,766,353	20,479,546	23,752,193	24,575,465	4,446,845	4,464,836	4,437,258	4,831,192	5,120,436	5,276,723	1,969,058	1,919,122	1,866,271	1,240,405	300,938	4,678,864	4,871,258	4,941,094	5,469,323	5,790,815	6,068,240	27,041,765	27,070,339	28,010,976	32,020,466	34,964,382	35,920,428	
Administration ...	182,616	189,372	180,447	245,697	261,764	275,587	37,012	36,846	45,975	56,885	68,930	72,223	18,733	19,396	24,093	14,389	3,792	72,836	83,870	77,804	102,301	112,763	125,696	311,197	329,484	328,319	419,272	447,249	473,506	
Maintenance ...	4,978,828	4,780,063	3,848,443	4,305,958	4,979,355	5,367,600	956,731	1,120,240	1,240,230	1,389,897	1,456,817	1,559,548	800,212	814,355	670,368	507,231	93,046	1,608,210	1,763,793	2,038,180	1,926,672	2,240,940	2,290,977	8,343,981	8,478,459	7,797,221	8,129,738	8,770,158	9,218,125	
Depreciation ...	1,285,947	1,361,984	1,766,021	2,061,213	2,169,249	2,343,726	253,236	257,569	255,236	261,092	261,468	273,869	64,885	63,218	62,482	40,344	—	658,860	659,223	708,343	744,009	788,380	820,122	2,262,928	2,341,994	2,792,082	3,106,638	3,219,097	3,437,717	
Adjustments ...	Cr. 1,129,000	Cr. 341,086	463,944	648,583	710,643	512,379	34,000	Cr. 141,576	Cr. 230,090	Cr. 293,526	Cr. 296,368	Cr. 322,390	Cr. 375,000	Cr. 383,293	Cr. 273,495	Cr. 199,824	Cr. 8,305	43,000	Cr. 49,687	Cr. 255,786	74,202	Cr. 135,207	Cr. 35,810	Cr. 1,427,000	Cr. 915,662	Cr. 295,427	2,229,435	2,707,763	3,541,719	
Other Traffic Costs	5,318,391	5,990,333	6,258,855	7,261,451	8,121,011	8,499,292	1,280,979	1,273,087	1,311,351	1,414,348	1,490,847	1,583,250	508,830	513,676	483,448	362,140	88,533	2,382,906	2,457,199	2,568,541	2,847,184	3,006,876	3,200,985	9,491,106	10,234,295	10,622,195	11,885,123	12,707,267	13,283,527	
Administration ...	271,987	272,775	295,494	336,300	365,813	383,580	65,233	68,720	64,758	60,013	65,549	66,623	27,257	28,118	28,595	14,099	3,701	101,894	121,174	125,909	130,134	139,148	148,580	466,371	490,787	514,756	540,546	574,211	598,783	
Wages, clothing, national insurance of traffic staff ...	841,130	889,383	908,166	1,122,922	1,310,196	1,442,421	297,597	314,496	300,835	290,211	301,355	320,051	181,603	190,262	169,150	83,644	22,213	1,960,926	2,035,782	2,016,261	2,441,704	2,646,872	2,781,105	3,281,256	3,429,923	3,394,412	3,938,481	4,280,636	4,543,577	
Vehicle cleaning and other garage expenses ...	1,393,772	1,402,829	1,446,119	1,718,543	1,985,376	1,989,381	357,189	391,098	396,777	422,357	460,499	472,658	166,706	175,597	175,491	110,039	28,851	106,275	98,115	112,628	112,831	129,778	98,833	1,917,667	1,969,524	2,018,387	2,250,939	2,474,726	2,462,039	
Ticket service ...	179,443	193,386	216,279	233,244	273,060	293,103	54,908	50,237	54,226	51,395	63,587	61,330	32,070	33,455	33,329	20,886	4,534	224,430	236,823	247,997	278,469	296,618	317,228	372,696	379,193	416,462	418,356	453,266	453,266	
Compensation for accidents, losses, etc.	157,447	218,118	194,896	229,774	230,970	280,933	49,090	70,277	60,857	80,055	72,869	55,272	37,894	59,890	71,774	44,391	9,714	162,980	164,850	175,054	102,633	120,732	128,920	162,980	164,850	175,054	102,633	120,732	128,920	
Operation of signals ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Operation of lifts and escalators ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Depreciation of traffic equipment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Station supplies and cleaning ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Miscellaneous ...	291,370	238,646	295,058	484,693	468,550	432,960	47,887	50,325	58,791	102,514	79,599	74,939	92,888	89,740	87,564	76,650	11,273	248,418	262,701	277,510	300,949	348,121	522,430	248,418	262,701	277,510	300,949	348,121	366,324	
Maintenance and Renewal of Way and																														

Financial Results of London Transport and of Certain Municipal Undertakings

	LONDON 1st January, 1953—31st December, 1953										GLASGOW 1st June, 1953—31st May, 1954						BIRMINGHAM 1st April, 1953—31st March, 1954		MANCHESTER 1st April, 1953—31st March, 1954				LIVERPOOL 1st April, 1953—31st March, 1954					
	Central Buses		Country Buses		Coaches		Trolley-Buses		Railways		Motor Buses		Trolley-Buses		Trams		Underground		Motor Buses		Motor Buses		Trolley-Buses		Motor Buses		Trams	
	NUMBER OF PASSENGER VEHICLES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE SPEED ...	11.24	...	13.93	...	18.38	...	11.22	...	20.4	...	12.90	...	11.31	...	10.51	...	13.76	...	12.12	...	12 (approx.)	...	11 (approx.)	...	12.99	...	9.71	...
CAR MILES IN PASSENGER SERVICE ...	279,196,000	...	47,912,000	...	23,370,000	...	74,235,000	...	195,233,000	...	25,595,735	...	2,775,450	...	30,396,885	...	1,453,168	...	48,220,032	...	39,189,161	...	6,025,137	...	32,051,575	...	5,046,639	...
	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile	Total	Per car mile
GROSS TRAFFIC RECEIPTS	£ 33,485,295	d. 28-78	£ 4,852,013	d. 24-30	£ 2,544,973	d. 26-14	£ 9,227,215	d. 29-53	£ 18,313,627	d. 22-51	£ 3,172,869	d. 29-751	£ 457,394	d. 39-552	£ 4,341,314	d. 34-277	£ 311,505	d. 51-447	£ 6,479,868	d. 32-251	£ 4,939,625	d. 30-251	£ 840,744	d. 33-489	£ 4,230,514	d. 31-68	£ 676,782	d. 32-19
Passengers and private hire ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous traffic receipts ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Gross Traffic Receipts...	33,485,295	28-78	4,852,013	24-30	2,544,973	26-14	9,227,194	29-53	18,743,945	23-04	3,173,428	29-756	457,397	39-553	4,341,314	34-277	311,505	51-447	6,487,650	32-291	4,939,625	30-251	840,744	33-489	4,230,514	31-68	676,782	32-19
WORKING EXPENSES	£ 14,324,707	d. 12-32	£ 1,983,149	d. 9-93	£ 700,318	d. 7-19	£ 3,698,844	d. 11-96	£ 1,754,711	d. 2-16	£ 1,032,436	d. 9-680	£ 131,419	d. 11-364	£ 1,405,393	d. 11-096	£ 43,054	d. 7-110	£ 2,234,511	d. 11-123	£ 1,761,296	d. 10-787	£ 297,111	d. 11-835	£ 1,355,178	d. 10-15	£ 269,017	d. 12-79
Vehicle Operating Expenses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wages, clothing and national insurance	5,327,290	4-58	815,158	4-08	370,918	3-81	1,384,507	4-48	3,701,014	4-55	519,146	4-868	41,185	3-561	449,768	3-551	30,854	5-096	1,059,949	5-276	775,121	4-747	297,111	4-835	1,355,178	4-81	269,017	12-79
Petrol and fuel oil ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Electric current ...	690,522	-59	116,801	-59	56,840	-58	182,143	-58	...	...	67,784	-636	7,744	-670	449,768	-104	339	-056	98,113	-488	90,964	-557	61,642	-2-455	72,382	-54	83,291	3-96
Tyres ...	155,186	-13	23,240	-12	11,336	-12	11,229	-04	...	...	21,084	-197	668	-059	13,222	-104	10,043	-056	36,659	-183	36,467	-223	2,084	-083	37,171	-28	7,397	-35
Lubricating, oiling and greasing ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Car cleaning and other depot expenses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	20,497,705	17-62	2,938,348	14-72	1,139,412	11-70	5,276,723	17-06	6,068,240	7-46	1,669,555	15-654	182,361	15-770	1,898,067	14-986	84,637	13-977	3,444,997	17-148	2,677,617	16-398	376,854	15-011	2,118,683	15-87	361,625	17-19
Maintenance and Repair of Rolling Stock	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Departmental administration ...	226,435	-19	35,158	-18	13,994	-14	72,223	-23	125,696	-15	2,290,977	-5-04	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maintenance ...	4,425,619	3-81	672,449	3-36	269,532	2-77	1,559,548	5-04	2,290,977	2-82	373,697	3-503	30,535	2-640	533,563	4-213	44,535	7-355	716,269	3-564	503,296	3-082	62,541	2-491	518,308	3-88	179,059	8-52
Adjustments ...	420,337	-36	71,539	-36	20,503	-21	Cr. 322,390	1-04	Cr. 35,810	-04	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	5,072,391	4-36	779,146	3-90	304,029	3-12	1,309,381	4-23	2,380,863	2-93	373,697	3-503	30,535	2-640	533,563	4-213	44,535	7-355	716,269	3-564	503,296	3-082	62,541	2-491	518,308	3-88	179,059	8-52
Other Traffic Expenses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Departmental administration ...	284,253	-25	74,699	-37	24,628	-25	66,623	-21	148,580	-18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wages, clothing and national insurance	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Of traffic staff ...	1,209,708	1-04	167,745	-84	64,968	-67	320,051	1-04	2,781,105	3-42	64,310	-603	8,192	-708	85,761	-677	29,137	4-812	207,879	1-034	141,009	-863	22,075	-879	132,090	-99	26,942	1-28
Vehicle cleaning and other garage expenses ...	1,638,278	1-41	275,440	-138	75,663	-78	472,658	1-53	...	...	89,905	-843	7,456	-644	180,641	1-427	...	...	227,826	1-134	176,402	1-080	25,665	1-023	119,165	-89	40,274	1-91
Ticket service ...	237,912	-20	45,256	-23	9,935	-10	61,330	-20	98,833	-12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Traffic revenue control ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Operation of signals, lifts and escalators	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Station supplies and cleaning ...	242,616	-21	30,635	-15	7,682	-08	55,272	-18	39,446	-05	53,041	-497	6,270	-542	73,364	-579	895	-148	39,139	-195	59,028	-362	7,872	-314	55,108	-41	10,200	-49
Compensation ...	336,836	-29	76,751	-39	19,373	-20	74,939	-24	95,131	-12	3,258	-031	155	-013	41,854	-330	...	...	4,083	-020	59,028	-362	7,872	-314	55,108	-41	10,200	-49
Miscellaneous ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	3,949,603	3-40	670,526	3-36	202,249	2-08	1,050,873	3-40	3,975,567	4-89	280,807	2-633	30,538	2-639	475,809	3-757	62,786	10-370	650,285	3-236	485,105	2-971	72,206	2-876	405,745	3-03	94,209	4-48
Maintenance and Renewal of Way and Structures	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Departmental administration ...	11,564	-01	1,658	-01	606	-01	15,478	-05	192,767	-24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Electrical equipment of routes and lines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Permanent way, bridges, tunnels, etc. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

London Transport Executive—Summary of Employees' Starting and Finishing Times

Date: WINTER 1953/54

GROUP: MILLBANK

[illegible]

15th September, 1953.

APPENDIX VII (B)

Hours of Attendance at 16 Government Departments Occupying Buildings in the Central London Area

Department	* Normal hours of attendance between A.M. P.M.		No. of Staff	No. of buildings occupied	Percentage of staff leaving between 5 and 6 p.m.	Remarks on percentage of staff leaving between 5 and 6 p.m.
Admiralty... ..	9.30	6. 0	4,700	3	34 to 42 <i>per cent.</i> according to building	—
Agriculture and Fisheries	9. 0	5.30	1,891	3	98	—
Air Ministry	9. 0	5.30	6,232	14	28 to 92 according to building	Of the two largest groups totalling 2,441 staff the figure is 57 per cent.
Customs and Excise ...	8. 0	5.30	2,900	5	31 to 99 „ „	99 per cent. only applies to one small group (250 staff). For the majority (2,060 staff) the average is 64 per cent.
Education... ..	9. 0	5.30	1,965	4	65 to 90 „ „	—
Foreign Office	8.30	7. 0	2,020	6	5 to 60 „ „	For the majority (1,340 staff) the average is 9 per cent.
Fuel and Power	9.30	5.30	942	3	71 to 85 „ „	The figure for the majority (867 staff) is 71 per cent.
Health	8.30	6. 0	1,423	4	60 to 80 „ „	The figure for the majority (1,315 staff) is 67 per cent.
Home Office	9. 0	5.30	1,590	3	62 to 67 „ „	—
Labour	9. 0	5.30	2,419	8	82 to 96 „ „	—
Post Office	6. 0	8. 0	21,348	45	Nil to 100 „ „	180 staff in one building all leave at 4.30 p.m.; 387 in another all leave at 5.30 p.m. At St. Martins Le Grand (1,130 staff) 65 per cent. leave between 5 and 6 p.m. At Faraday Building (3,224 staff) 77 per cent. leave between 5 and 6 p.m. At Waterloo Bridge House (1,000 staff) only 17 per cent. leave between 5 and 6 p.m.
Supply	Not stated (presumably 9 to 5.30)		7,269	10	80 to 90 „ „	—
Board of Trade	9. 0	5.30	5,540	12	64 to 100 „ „	The 100 per cent. figure only relates to 170 staff. For the three largest groups each over 1,000 staff the figures are respectively 68 per cent., 82 per cent. and 91 per cent.
Transport and Civil Aviation— Berkeley Square House and Hereford Road.	8.45 (Monday and Tuesday) 8.45 (Wednesday to Friday)	6. 0 5.30	2,583	2	—	Only an insignificant number of staff leave between 5 and 6 p.m., the hours of attendance being designed to avoid this.
Ariel House, Woburn Place.	9. 0	5.30	503	2	90	Staff continue hours of attendance customary in the former Ministry of Civil Aviation.
War Office	9. 0	5.30	4,294	11	66 to 100 according to building	The 100 per cent. figure relates to less than 100 staff. For the largest group (1,390 staff) the figure is 66 per cent.
Works	9. 0	5.30	4,852	8	100	—

* Where the hours shown exceed 8½, e.g., Post Office 6 a.m. to 8 p.m., it can be assumed that hours for certain staff are staggered.

ROUTE C

SKETCH MAP SHOWING RAIL INTERCHANGE FACILITIES.

(Connecting lines shown in panels)

